Evaluation of the Threshold Assessment Grid as a means of improving access from primary care to mental health services

Report for the National Co-ordinating Centre for NHS Service Delivery and Organisation R & D (NCCSDO)

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Executive Summary

Background

There is little consensus over how severe mental illness is defined by different primary and secondary mental health services. This lack of clarity can lead to inequalities in access to services due to the lack of a reliable and consistent means of prioritising the most severely mentally ill for specialist mental health care.

The Threshold Assessment Grid (TAG) is a one-page 7-tick staff-rated standardised assessment that has been developed to identify those people whose mental health problems are of sufficient severity to need access to secondary mental health services.

Aims and objectives

This study evaluated the implementation and use of the TAG as a means of improving the referral process between primary and secondary adult mental health services. The **aim** was to reduce access inequities between primary care and secondary mental health services by improving in-system access. The main **objective** was to test whether asking GPs to complete the TAG in addition to usual referral practice improved access. Three **hypotheses** were investigated:

- 1. Using the TAG will significantly improve the agreement between the GP and the adult mental health team on the appropriateness of the referral.
- 2. Receiving a TAG with a referral letter will make it significantly easier for the mental health team to identify:
 - (a) the urgency of the referral and,

(b) the most appropriate professional to make the initial assessment, and,

3. Time taken to discuss referrals accompanied by a TAG will be less than that spent on those without a TAG.

Secondary objectives were to determine the cost-effectiveness of using the TAG, and to explore the population-level resource implications for services from using the TAG.

Methods

Design

The study was a multi-site multi-method cluster randomised controlled trial (RCT). General Practitioner (GP) practices were randomised, and the unit of analysis was the mental health referral. A cluster RCT of GP practices was more appropriate than a non-cluster RCT of referrals because the intervention

was focused at a group rather than individual level. In addition, clustering by practice avoided contamination between GPs in the control group and those in the intervention group.

Setting

The sites consisted of one complete London Borough (Croydon) comprising eight adult community mental health teams (CMHTs) and three CMHTs in Manchester. The sites were chosen to ensure a nationally representative population including a range of densely and more sparsely populated areas (Croydon) and high deprivation inner-city areas (Manchester).

Participants

The inclusion criteria for the trial were (i) being a GP practice, and (ii) providing care for patients residing within either the London Borough of Croydon or the 3 CMHT catchment areas in Manchester. 101 GP practices were originally assessed for eligibility (Croydon = 66, Manchester = 35), with 1 (Croydon) failing to meet the criterion. All remaining GP practices were approached and given the opportunity to opt out of the trial and written informed consent gained from participating practices. A total of 28 GP practices opted out of the trial (Croydon = 10, Manchester = 18), leaving 72 GP practices to be randomised (Croydon = 55, Manchester = 17).

Procedure

GPs from practices in the **intervention group** were asked to complete and attach a TAG whenever referring to CMHTs, while those in the **control group** were asked to continue with their usual referral practice. CMHTs completed a rating referral form for each referral received (for those with TAG and without) which included: (a) clinical and socio-demographic details about the referred patient; (b) a Likert scale to rate referrals for quality of information to inform decision-making about (i) appropriateness of the referral, (ii) urgency, and (iii) which professional should make the initial assessment: (c) whether a completed TAG was attached to the referral, and if it contributed to team decision-making about the referral, and: d) time taken to discuss referrals. The appropriateness measure (b(i) above) was the primary outcome measure for the trial.

A sample of referral letters (minus the TAG, where included) from both intervention and control group GPs were independently rated by a panel blinded to allocation status. The referrals were assessed using the same scales given to the CMHTs, and provided information about whether referral letters from intervention group GPs provided more salient information than referral letters from control group GPs.

Qualitative and health economic data

The randomised controlled trial was supplemented with qualitative and health economic data.

Semi-structured interviews were conducted with GPs, Community Mental Health Team leaders and Psychiatrists in order to explore views on access between primary and secondary mental health services.

Referral meetings were audio-recorded for each mental health team 'pre' and 'post' intervention to provide a 'snapshot' of the referrals' decision-making process.

Health economic data were also collected (Croydon only) in order to explore the cost-effectiveness of TAG and the population-level resource implications. This was done by exploring (i) referrals to all key services and agencies; (ii) changes in primary care prescribing patterns and contact rates; and (iii) time to initial appointment with the mental health team (to investigate whether the system operates more efficiently).

Analysis

The primary outcome (appropriateness of referral) and two secondary outcomes (ease of rating urgency and identifying the correct professional) were compared at follow up using chi-squared tests and odds ratios with 95% confidence intervals. The secondary outcomes were on a five-point scale converted to binary variables. An intention-to-treat analysis was performed (analysing all those referrals for which data were available according to the trial arm to which the practice had been assigned). In addition those referrals which had been accompanied by the TAG were compared with those that had not, within the intervention arm in order to compare those referrals where the TAG was actively chosen with those where it was not, despite being available. Since practice was the unit of randomisation and referrals from a given practice were potentially correlated, the analyses were repeated using a random effects logistic regression to estimate adjusted odds ratios, with the practices entered as random effects.

Results

Quantitative

The study involved GP practices providing care for 407,808 patients (297,756 in Croydon, 110,052 in Manchester), *i.e.* 0.8% of the population of England. 1,061 referrals were made by participating GPs to CMHTs. The characteristics of the referred patients are shown in Table 1.

	Total N=1061	Croydon Control N= 455	Croydon Intervention n= 379	Manchester Control N=89	Manchester Intervention N=138
Gender Female n (%) (Missing = 5)	578 (54.7%)	250 (54.9%)	208 (55.5%)	48 (53.9)	72 (53.6)
Age Mean (sd) (Missing = 3)	36.23 (12.09)	36.46 (12.21)	36.53 (12.15)	35.27 (11.78)	35.29 (11.76)
1° Clinical Diagnosis					
n (%)					
Psychosis/Schizoph	93 (9%)	34 (8%)	30 (8%)	11 (12%)	18 (13%)
Anxiety Disorder	173 (16%)	88 (19%)	73 (19%)	4 (5%)	8 (6%)
Depressive Disorder	478 (45%)	210 (46%)	197 (52%)	25 (28%)	46 (33%)
Bipolar Disorder	32 (3%)	12 (3%)	14 (4%)	2 (2%)	4 (3%)
Other	146 (14%)	87 (19%)	48 (13%)	5 (6%)	6 (4%)
Unknown/Missing	139 (13%)	24 (5%)	17 (4%)	42 (47%)	56 (41%)
GP contact rates in 6 mths prior to referral* mean (sd)		8.64 (7.1)	9.44(7.14)		_

Table 1 Socio-demographic & clinical characteristics of referredpatients from study GP's to CMHTs at baseline

*n=384, annualised rates, Croydon only

Table 2 shows the primary and two secondary outcomes by trial arm on an intention-to-treat basis. There were no significant differences at P=0.05 between the two trial arms in any outcome. There was weak evidence that rating urgency was easier in the intervention arm (p=0.06).

Table 2 Appropriateness of referral, ease of rating urgency and easeof identifying professional by trial arm

	Control n=541	Intervention n=514	OR (95% CI)	χ ²	р
Appropriate referral	326 (60%)	330 (64%)	1.18 (0.91 to 1.53)	1.74	0.19
Urgency rating easy/very easy	253 (76%)	277 (81%)	1.43 (0.97 to 2.1)	3.54	0.06
Professional identification easy/very easy	292 (87%)	303 (89%)	1.21 (0.74 to 1.98)	0.62	0.43

The TAG was used by 25% (14% Manchester, 28% Croydon) of referrals from intervention group practices. Table 3 compares ratings for intervention group referrals with and without a TAG. No outcome differed between these groups at P=0.05.

	TAG available but not used n=386	TAG available and used n=128	OR (95% CI)	χ ²	р
Appropriate referral	247 (64%)	83 (65%)	1.04 (0.67 to 1.62)	0.03	0.86
Urgency rating easy/very easy	208 (81%)	69 (84%)	1.28 (0.64 to 2.72)	0.51	0.47
Professional identification easy/very easy	226 (87%)	77 (94%)	2.18 (0.80 to 7.41)	2.55	0.11

Table 3 Appropriateness of referral ease of rating urgency and easeof identifying professional by complier status

Logistic analysis controlling for site and practice (included as random effects) showed no significant differences at P=0.05 for any of the comparisons reported in Tables 2 and 3, and the trend toward significance of the ease of rating urgency was no longer observed. However there was weak evidence that identifying a professional was easier for referrals in the experimental arm that were accompanied by a TAG compared to those that were not (adjusted OR 2.69, 95% CI 0.96 to 7.52, p=0.06). The intra-class correlation for appropriateness (among referrals from the same practice) was 0.05.

Qualitative

The TAG was inadequately implemented to allow meaningful evaluation of its impact. Reasons for this were explored qualitatively with GP referrers, CMHT leaders and Consultant Psychiatrists. Two types of implementation block were identified: professional (for both referrer and referred-to team) and organisational.

For GPs, forgetting to use the TAG when making a referral (as so few referrals are made that TAG use had not become routine) was not the only reason that TAG was not completed. GPs suggested that TAG was simplistic and so did not reflect the complexity of dealing with patients with mental health problems. Some GPs expressed concern that the TAG score could be manipulated by other GPs to coerce the CMHT to accept referrals. Other GPs feared that TAG would be used by CMHTs to further restrict referrals.

For CMHT respondents, the view was expressed that GPs were neither willing to complete schedules nor reliable in their completion of TAGs. However, they also reported that TAGs accompanying referrals had not been considered in their referral meetings, so TAG scores had not in fact affected their decisionmaking.

At the organisational level, the two sites used differing approaches to implementation. In Croydon, the evaluation was called a service development, and directly supported by the mental health trust. In Manchester, the evaluation was labelled as research and so practices were more able to initially refuse to participate in the study and to later opt out of using TAG. This may account for a lower GP practice participation rate and lower use of TAG in Manchester.

Health economic

The cost of the TAG was estimated at £5 per referral. This includes the material costs of the TAG plus staff time spent reading and completing it.

In Croydon there was a 12% reduction in referrals to CMHTs from control group practices but only a 2% reduction from intervention group practices. In Manchester there were opposite trends – a 17% reduction from control group practices but a 16% increase from intervention group practices. Croydon saw a 7% and 17% fall in referrals to counselling and psychology services from control group practices and intervention group practices respectively.

In Croydon, prescriptions for antipsychotic medication and SSRIs fell for the whole sample, with no clear difference between control and intervention practices. GP contact rates were higher for Croydon intervention group patients (11 per year) compared to Croydon control group patients (9 per year), a difference that was statistically significant (p=0.012). However, the difference between referrals accompanied by a TAG and those without a TAG was not significant (p=0.985).

The only statistically significant differences between the groups in waiting times was for the time between the referral being made and it being received, which was shorter in both sites for the intervention group, and shorted for TAG accompanied referrals compared to referrals without a TAG in Croydon.

Conclusions

This multi-site multi-method study investigated the introduction of a standardised assessment of mental health problem severity into the referral process from primary to secondary care. The use of TAG did not appear to impact on CMHT views about the 'appropriateness' of the referral. The TAG had only modest costs, but cannot be seen to be cost-effective given the outcome on referral appropriateness. Control group practices in both Croydon and Manchester decreased referrals substantially more than intervention group practices. If referrals result in secondary care service contacts, then

service costs for the intervention group would be relatively higher than for the control group practices.

The simplest explanation for the lack of impact of TAG on CMHT views about the 'appropriateness' of the referral is that the intervention was inadequately implemented to allow evaluation. We would argue, however, that the study was methodologically rigorous, and its sampling frame is adequate both in size and socio-demographic representativeness. The main weakness is the 'black-box' assumption embedded in trial methodology, that variation in how an intervention is implemented is undesirable.

The research has two important messages. First, caution should be exercised over the introduction of new processes (*e.g.* referral forms). In this case, the new assessment had been carefully developed over a ten-year period within a research programme to develop a standardised mental health referral form. Four research grants funded a systematic review, Delphi Consultations, expert consensus workshops, and a previous ten-site prospective cohort study. Since most new processes will be less tested before introduction, the likelihood of benefits arising may be even lower.

Second, the qualitative component explained the low use of the TAG by referring GPs. Narratives from both GP referrers and referred-to team leaders and Psychiatrists concentrated on the relationships between the health professionals, and how this influenced the referral process and outcome for both patient and professional. This indicates that, in mental health, the referral forms (*i.e.* the paperwork) are embedded in a rich interpersonal context. Organisation factors were also identified: in this study GPs who referred without TAG still had their referral considered, and CMHTs did not feel they needed the TAG data to make decisions. Future research into improving agreement on referrals will need to take account of these professional and organisational factors, by viewing any process change as only one part of a multi-level intervention to improve communication and mutual understanding across the interface.

Dissemination

Dissemination and communication of study outcomes has been undertaken at both a local and national level. Locally, GP practices have been provided with a two-page summary of the study results and can request further individualised information. Additionally, reports have been produced and presented to mental health services in Croydon and Manchester. Nationally, a number of academic papers are currently in preparation. These papers will be targeted at a variety of journals in order to achieve maximum readership. In addition, the study was presented at the UK Mental Health Research Network Conference 2005 and an abstract has been submitted for an oral presentation at the Society for Academic Primary Care Conference in July 2006.

Recommendations for future research

Future TAG research should be more focussed on its use for fostering discussion between individual referrers and teams about the role of severity in decision-making about referrals. This is likely to involve individual case studies and development of best practice guidelines, rather than large-scale trials of an invariant intervention.

Future research into management of the primary – secondary care interface in mental health will require more explicit and detailed consideration of process issue, including professional and organisational factors. Changing the process of referral is unlikely in itself to improve access.

Randomised controlled trials, especially those which are multi-site and investigating complex interventions, should routinely include multi-method exploration of process issues.

The Report

Section 1 Introduction

This study investigated an approach to improving access from primary care to secondary mental health services.

1.1 NHS Context

The NHS has identified mental health care as a priority area, with the NHS Plan providing an extra annual investment of over £300 million by 2003/04 to fast-forward the Mental Health National Service Framework (MHNSF). The majority of mental health care in the NHS is provided by primary care services, and those people with more severe mental health problems also receive care from specialist secondary mental health services. Standard 2 of the MHNSF states that people with common mental health problems should have their mental health needs identified, assessed and treated by the primary care team, and be referred to specialist services if they require it. This goal is consistent with previous policy such as the National Health Service and Community Care Act (1990), which differentiated between those people with less severe mental health problems who should be cared for by primary care, and those with more severe mental health problems – the severely mentally ill (SMI) – who should receive care from both primary care and specialist mental health services.

Four barriers relating to **access-entry** (access into the health system) and **in-system access** (access between primary and specialist mental health care services) have been identified:

- Some groups at high risk of severe mental illness (SMI) have disproportionately low rates of consultation with primary care services, such as homeless people (Plumb 1997). This results in reduced equity in access-entry (access into the health system).
- Once in contact, fewer than 50% of people with common mental disorders will be identified by General Practitioners (GPs) (Vázquez-Barquero, 1999), and possibly as low as 36% (Kessler et al, 1999).
- **3.** Once identified, the decision is made as to whether to treat solely at primary care level or refer to mental health services, and there is evidence of inequity in *relative access* the experience of different population groups in accessing services. Patient gender influences the decision to refer (Ross et al, 1999), the proportion of referrals for homeless and ethnic minority groups will fall unless they are explicitly prioritised (Shepherd et al, 1998), and, in general, community-based services struggle to retain a focus on the SMI (Harrison et al, 1997). When people are referred due to factors other than clinical need, access is reduced because some people are assessed who do not need to be

assessed, and because other people who would benefit from specialist mental health care are not referred. There is disagreement about appropriateness for 20% of primary care referrals to Community Mental Health Teams (CMHTs) (Slade et al, 2003), indicating that this is a priority area for innovations to improve access.

4. Once referred, the referral letter may omit important information (Ball and Box, 1997). Inadequate referral information means that the appropriateness of the referral and the urgency of response needed cannot be judged by the mental health team, resulting in reduced insystem access (i.e. access once in the health care system).

Much progress has already been made in reducing these access barriers. For example, in Croydon (the largest site in this study) the introduction of welldeveloped primary care protocols is intended to reduce inequities in relative access at the primary care level. However, the full implementation of Standard 2 of the MHNSF may prove difficult to assess, because no clinically feasible yet scientifically robust approach has emerged for managing the primary-secondary care interface in mental health. This is an increasing challenge – 1997 levels of referral from primary to secondary mental health services were 4.5 times 1971 levels (Verhaak *et al*, 2000). The issue of who to refer and who not to refer to mental health services remains problematic (Cotterill & Barr, 2000).

Improving access to mental health services remains a priority since the research was commissioned. A recent report concluded "Our review of adult community mental health services found that some patients were concerned about the availability of these services, particularly before a crisis" (Healthcare Commission, 2006, p. 42). The intention in the Mental Health National Service Framework (Department of Health, 1999) was to develop a single point of access to adult mental health services. In practice, this has been overtaken by several events. The challenge of effective management is made even more problematic by three specific developments.

First, the growth of specialist teams (early psychosis, recovery, assertive outreach, crisis resolution *etc.*) complicates the health and social care economy. The most recent review found that over 700 such teams have been developed in England, including 266 crisis resolution teams and 251 assertive outreach teams. (Department of Health, 2006). These development make effective whole-system management more difficult.

Second, the development of pilot 'treatment centres' for people with common mental disorders (Layard, 2006) create further tensions. Although currently only at the stage of being piloted in two sites, the proposal is for a national network of 250 treatment centres. This creates further dilemmas for GPs and other referrers, by introducing another primary – secondary interface in mental health.

Third, the importance of the 'choice agenda' (Department of Health, 2003) in mental health is becoming more recognised, and this has important consequences for access. The most recent research into choices in mental health identified four areas where people want more choice, one of which was "A choice of how to contact mental health services" (CSIP, 2006a). Local Implementation Teams are now asked to include in their reports to CSIP "*the range of contact and access points that are available for local people to choose from*" (CSIP, 2006b, p. 12). Getting the right balance in level of choice about access is important, as patients generally (not just in mental health) "*prefer to have access to one good GP and hospital rather than several of indeterminate quality*" (Fotaki M, 2006, p. 2). This of course creates yet further complexity from the perspective of managing access and maximising efficiency.

The challenges of managing access to adult mental health services are thus increasingly complicated. An assessment to identify severity of mental health problems which is suitable for use by primary care referrers has the potential to lead to improved primary-secondary care communication, a higher proportion of appropriate referrals, and reduced access inequities for people needing care from mental health services.

1.2 Relevant literature

In 1994 a Department of Health working group was commissioned to review best practice in managing in-system access between primary and secondary mental health services. Following an international survey, it was concluded that there was no consensus regarding how to identify the priority group for secondary mental health services (Slade *et al*, 1997).

Prior to starting this research, we updated this review by searching the National Research Register (finding work only relevant to other client groups – Projects RDO/33/40 and RDD PSI A-88 – or to protocol development methods – M0005037508), the Cochrane Library, Medline and PsychLit since 1997 for articles with variants of "mental health", "primary" and "referral" in their title. The main finding was that the lack of agreement regarding referral criteria has been addressed in three ways: treatment protocols, researchbased assessment and assessments intended for routine use.

The first approach has been the development of treatment protocols (e.g. Thompson *et al*, 2000). These have the advantage of providing specific guidance on treatment options, but are unsuitable for general-purpose use by referrers because they relate to defined conditions.

The second approach has been the development of research-based assessments, which identify the sub-group of people with more severe and enduring mental health problems (e.g. Ruggeri *et al*, 2000; Phelan *et al*, 2001). Their high reliability allows testing of their sensitivity and specificity, but there is no evidence that they are suitable for routine clinical use.

The third approach has been to develop assessments explicitly intended for routine use, and two assessments were identified. The Matching Resources to Care (MARC-1) assessment is intended to "collect a standard set of data covering the majority of items specified in the academic and policy literature

as characterising SMI" (Huxley *et al*, 2000, p. 313). It has been tested through completion by community psychiatric nurses and social workers for 2,139 mental health service users, and it demonstrated acceptable reliability and validity. It is intended for use by staff working with a mental health caseload, and has not been tested as a means of identifying who should be referred to mental health services. The second assessment is the Threshold Assessment Grid (Appendix 31), which was used in this study. Overall, however, it should be stressed that very little research evidence exists about managing the primary / secondary care interface in mental health, and no RCT was identified which evaluated an intervention to improve access.

1.3 The Threshold Assessment Grid (TAG)

This study consolidated and extended our previous work in developing and testing the TAG. This work has employed a range of qualitative and quantitative methodologies, and actively involved primary care and mental health service users, carers, staff, managers and policy-makers.

Although the review commissioned in 1994 found no consensus, five dimensions were identified which were commonly present in approaches to identifying people needing secondary mental health care: Safety; Informal and formal care; Diagnosis; Disability; Duration (SIDDD) (Slade *et al*, 1997). These dimensions offered a framework for identifying the SMI, and were used in the 1995 Building Bridges policy document to improve inter-agency working.

Following the identification of these SIDDD dimensions, London Region NHS R&D funded research to develop this framework into a scale to assess the severity of mental health problems (Grant RFG334). The study used search workshops and a Delphi Consultation – qualitative research techniques for assessing the degree of consensus for a problem characterised by polarised disagreement. In this case, the problem was identifying the group of people who should be seen by secondary mental health services, and the disagreement related to the relative importance (if any) of diagnosis, previous service use, risk, etc. Six search workshops (n=57) and a Delphi Consultation (n=58) were held, involving the full range of stakeholders. The goal was to develop a scale for use when making a referral to mental health services. The scale needed to be brief and feasible for routine use, suitable for use across agencies, use minimal jargon, and have demonstrated psychometric properties.

The resulting TAG (*Appendix 31*) comprises two A4 pages. The first page is the score sheet, and is completed by the referrer ticking one anchor point for each of seven domains: intentional and unintentional self-harm, risk from and to others, and survival, psychological and social needs/disabilities. The second page gives evidence-based checklists for guidance in assessing each of the seven domains. (This use of the term 'evidence-based' predates the evidence-based mental health movement, and has a slightly different meaning. The evidence-based checklists were generated using innovative consensus techniques to identify assessment items that have both empirical validity and are useable in practice.) The advantage of this structure is that referrers can simply put a tick in the seven domains on the score sheet to complete the assessment, or they can use the evidence-based checklists to improve and inform their assessments. The development process is fully described in (Slade *et al*, 2000).

The psychometric properties of the TAG were tested in an exploratory trial during 1999 and 2000, in the multi-site TAG study, again funded by London Region (Grant RFG549). This involved evaluating 605 TAG-accompanied referrals to 10 adult, elderly and day care mental health services throughout London. Three important issues were investigated. First, adequate psychometric properties in routine use were established – the TAG had good construct validity (expert-rated TAG score 3.4 vs. 15.0 for non-SMI vs. SMI), good concurrent validity (GP-rated TAG score 4.9 vs. 9.4 for non-SMI vs. SMI, community mental health team-rated TAG correlated -.65 with Global Assessment of Functioning (GAF), .71 with Health of the Nation Outcome Scale (HoNOS) and .53 with Camberwell Assessment of Need Short Appraisal Schedule (CANSAS), with higher domain-specific agreement), inter-rater reliability of 0.58, test-retest reliability of 0.87, sensitivity to change of 0.80, and internal consistency of 0.73 in GP ratings. Second, the feasibility of the TAG for routine use was also demonstrated, with 74% of referrers completing TAGs (including 380 (76%) general practitioners), and 88% of mental health team staff. No differences were found between referrers who did and did not complete the TAG. Third, and uniquely, the referrer-completed TAG predicted the mental health team view of suitability of the referral, indicating that the TAG has utility as a primary / secondary care communication aid. Additionally, ROC curve analysis indicated that the best balance between minimising false negatives (a referral not made when it would have been appropriate) and false positives (a referral made when it was inappropriate) is a TAG score of 5 or more. Clearly this should not be used as a cut-off threshold (since people with lower TAG scores than 5 may still need referring), but when referring people with a TAG score of less than 5 the reason why their problems are of a severity to warrant specialist mental health service input should be explicitly stated in the referral letter. The feasibility of the TAG for routine use is reported in (Slade et al, 2001), its psychometric properties in (Slade et al, 2002), and its use in referrals in (Slade *et al*, 2003).

In summary, the TAG is the only standardised assessment of severity that requires no formal training, is demonstrated to be suitable for use by all referrers to mental health services and has established psychometric properties. A copy of the TAG can be downloaded from the TAG website (www.iop.kcl.ac.uk/prism/tag). The policy relevance of the TAG is indicated by its recent recommendation for national use in *Fast-forwarding Primary Care Mental Health* (Department of Health, 2002). Research to date has rigorously investigated the psychometric properties and feasibility of the TAG, and assessed whether CMHT-rated agreement on appropriateness was

associated with referrer TAG rating. Although this research provides extensive pilot data, all previous studies involved CMHTs *who were blind to the TAG assessments*. The potential of the TAG to improve access has not yet been investigated – this is the goal of the current research proposal. The intention is that in-system access be improved by increasing efficiency and reducing waste in primary-secondary interface working.

1.4 Aims and objectives

The **aim** of this multi-method study is to reduce access inequities between primary care and secondary mental health services by improving access *through* the system (*i.e.* barriers 3 and 4 above) by maximising the extent to which access decisions – who to refer from primary care and which referrals to accept at secondary care – are based on clinical need. This will be done in three ways:

- (a) fostering better communication between primary and secondary care;
- (b) encouraging a more consistent and informed response by the mental health team to referrals, both in terms of urgency and in identifying the most appropriate professional to make the initial assessment; and
- (c) reducing waiting time for referred patients, both because their referral is less likely to be 'bounced back' from the mental health team to the GP with a request for more information, and because fewer referrals will be made to the mental health team which could appropriately have been made to other agencies.

The primary outcome for the study was chosen as adult mental health team rating of agreement on appropriateness of the referral. This choice was informed by evidence from a previous study that it was a feasible outcome to collect (Slade *et al*, 2001).

The study has three main **objectives**:

To test whether asking General Practitioners (GPs) to complete the TAG in addition to a referral letter improves primary care referrals to adult mental health services. Three quantitative hypotheses will be tested:

Hypothesis (i) Using the TAG will significantly improve the agreement between the GP and the adult mental health team on the appropriateness of the referral, and;

Hypothesis (ii) Receiving a TAG with a referral letter will make it significantly easier for the mental health team to identify:

(a) the urgency of the referral and

(b) the most appropriate professional to make the initial assessment, and:

Hypothesis (iii) Time taken to discuss referrals accompanied by a TAG will be less than that spent on those without a TAG.

- 1. To determine the cost-effectiveness of using the TAG.
- 2. To explore the population-level resource implications for services from using the TAG.

This study is intended to improve in-system access between primary and specialist mental health services through improved management of the primary – secondary care interface. Therefore three important issues were not considered.

First, access to primary care (both in seeing a GP and having a mental disorder identified) is not addressed in this study, since the costs of such epidemiological research (*e.g.* to independently establish the psychiatric 'caseness' of GP attenders, for comparison with the patients actually referred) would be disproportionate and would lead to a diffused focus for this study.

Second, long-term health outcomes for referred patients in the trial will not be assessed, since the aim is to improve the pathway *through* care. A different design would be needed to establish whether the optimum pathway (*i.e.* with fewest access barriers) is associated with the optimum outcome.

Third, the most intuitive measure of improved access is reduced waiting time, but experience from the previous TAG study indicates that this is not a reliable measure of access. Local factors other than clinical need which impacted on the time between referral discussion and first appointment with the CMHT included temporary staff shortages, CMHT members' interests, and current caseloads of CMHT staff. A more reliable measure (and one for which there is evidence that it can be feasibly collected) of CMHT ratings of referral appropriateness was therefore chosen. The CMHT rating of appropriateness is of course not the only valid perspective – by definition, all referrals will have been thought appropriate by the referrer, and decisions about making or responding to referrals may be influenced by a range of considerations. The important question of whose view of appropriateness should take priority is not addressed in this study. Rather, the intention is that using the TAG will lead to improved agreement on appropriateness (and hence improved insystem access), both by shaping GP referral practices and through more information being available to mental health teams. Hypothesis (i) is deliberately worded to avoid the implication either that the GP referral may be 'wrong' or that the mental health team response may be 'wrong'.

A short multi-centre trial is preferable to a longer single-centre trial, since this will lead to earlier and more generalisable results that will directly address the current access problem in service organisation. Therefore the intervention will last for 6 months. Similarly the study will only involve GPs who decline the opportunity to opt out – the gains in representativeness from attempting to involve all GPs are outweighed by the difficulties in successfully completing the trial with less enthusiastic participants, who would not in any case participate in the intervention were it to be implemented nationally.

The RCT is evaluating a change of practice – using the TAG. A co-ordinated strategy for this practice change will be used, based on the Green and

Eriksen (1988) model – predispose to change, reinforce the change, and maintain the change. Predisposing activities will take place during the first year of the study, reinforcing activities during the six months of the clinical trial, and maintaining activities after the end of the trial.

Section 2 Quantitative methodology

2.1 Scientific framework

The scientific framework for this study was the Framework for Design and Evaluation of Complex Interventions to Improve Health (Campbell et al, 2000). In the previous work described in Section 1, a comprehensive review of **theory** informed the development of a testable **model** for referrals (the TAG), which was then investigated in an **exploratory trial**. Now that a theoretically-defensible and feasible protocol for using the TAG when making referrals had been developed and tested, a definitive RCT was the next scientific stage of development. The time was right for such an RCT because clinical equipoise currently exists - some services are implementing TAG into routine use following its recent policy endorsement, and some remain to be convinced of the benefits. This RCT investigated whether using the TAG brings benefits when compared with an appropriate control in a study with adequate statistical power. However, a standalone RCT would take inadequate account of context, which is centrally important to the study of health service delivery and organisation (Fulop et al, 2001). Therefore the RCT design was augmented by gualitative and health economic data (described in Sections 3 and 4 respectively), with a goal of triangulating results.

2.2 Design

A multi-site, multi-method study, comprising:

- a cluster randomised controlled trial (RCT)
- health economic analysis of service usage data
- qualitative data

GP practices were randomised, the unit of analysis being the mental health referral. A cluster RCT of GP practices was more appropriate than a noncluster RCT of referrals because the intervention was focused at group rather than individual level. In addition, clustering by practice helped avoid contamination of GPs in the control group (not using TAG) by those in the intervention group (using TAG). Clustering by GP practice would also help avoid any confusion within practices as to which GPs were meant to use the TAG and which were not.

2.3 Setting

The areas of Croydon and Manchester were selected for the current to meet three goals: (i) to have a nationally representative population; (ii) to include high deprivation inner-city areas in which primary care services are less comprehensive, leading to increased pressure on the primary-secondary interface (since these are the areas where the TAG would have the highest potential impact); and (iii) to allow health economic analysis of the systemwide impact of the intervention on a sizeable area. To meet these goals, the study took place in one complete London Borough (Croydon) comprising eight adult community mental health teams (CMHTs), and in three CMHTs in Manchester. All CMHTs had integrated health and social care working.

Croydon has a population of 330,000, and includes densely and more sparsely populated areas. The average Mental Illness Needs Index (MINI) (Glover et al, 1998) deprivation score is 100.1, with a range from 81.7 (most affluent electoral ward) to 111.1 (most deprived electoral ward). This indicates that the level of social deprivation varies widely within what is overall an area with average levels of deprivation for England, which together with its range of population density makes it a highly nationally representative location. In Croydon there are 179 GPs in 69 practices (Johnson et al, 1997), and approximately 3,500 people under the care of eight CMHTs. Specialist mental health services are provided by South London and Maudsley (SLAM) NHS Trust, with services organised into three localities containing eight CMHTs. Each CMHT has a multidisciplinary mix of professionals, and access to beds in the Bethlem Royal Hospital. A number of other statutory services operate locally, including an early onset psychosis service, a crisis response team, a comprehensive rehabilitation service and a women's house (serving as an alternative to admission). The local voluntary sector services include counselling, benefits advice and supported employment schemes. Croydon Primary Care Trust was formed on 1 April 2002, and is co-terminous with SLAM in Croydon.

Croydon Borough is not inner-city, and not predominantly multi-ethnic. The three teams from Manchester were chosen to add these characteristics to the sample frame. The participating teams were South Manchester Team 3 (population 43,886, MINI score 125, 24 referring GPs), Central Manchester Chorlton and Whalley Range (population 47,938, MINI score 115, 28 referring GPs) and South Manchester team 2 (population 66,000 MINI score 115, 32 referring GPs). All teams are funded through Manchester Mental Health and Social Care Trust, which has set up other teams with the same remit and resources (calculated on the basis of population needs), so these teams would be representative of other CMHTs in Manchester. Furthermore, these teams have the highest indicators for mental health needs outside London, with multi-ethnic populations and limited primary care mental health service. These characteristics made the Manchester sites an ideal test-bed for investigating whether TAG was effective where adult mental health services are under high pressure.

The findings from all 11 CMHTs were aggregated to meet the first objective of evaluating whether using TAG has direct benefits, and the findings from Croydon only were used to investigate the second and third objectives of whether using the TAG has indirect (system-level) benefits. The benefit of this configuration (which is a new collaboration, rather than simply a convenience sample) was that it both allows investigation of the system-wide

impact of introducing TAG, and has more generalisability than a single-site study.

2.4 Randomisation

Randomisation was undertaken by the Clinical Trials Unit, Institute of Psychiatry.

The inclusion criteria for the trial was (i) being a GP practice, and (ii) providing care for patients residing within either the London Borough of Croydon, or the 3 CMHT catchment areas in Manchester. 101 GP practices were originally assessed for eligibility (Croydon = 66, Manchester = 35), with 1 (Croydon) failing to meet the criterion. All remaining GP practices were approached and given an information sheet and verbal explanation of the study. (*Appendix 1*). All practices were given the opportunity to opt out of the trial. A total of 28 GP practices opted out of the trial (Croydon = 10, Manchester = 18), leaving 72 GP practices to be randomised (Croydon = 55, Manchester = 17).

The 72 participating GP practices were randomly allocated into either the intervention group (Croydon = 27, Manchester = 8) or the control group (Croydon = 28, Manchester = 9). Randomisation was by computer-generated random number, to avoid allocation bias. Stratification was used to ensure approximately equal numbers of GPs in the intervention and control group for each location, and approximately equal distribution of practice size (Small <3500 patients = 21 (Croydon = 17, Manchester = 4), Medium >3500 <6000 patients = 25 (Croydon = 19, Manchester = 6), Large >6000 patients = 27 (Croydon = 19, Manchester = 8)



Chart 1 CONSORT trial flow diagram

2.5 Sample size

The power was calculated for testing hypothesis (i) using mental health team ratings of referral appropriateness, and all assumed figures were based on findings from the TAG study (Slade et al, 2001). The sample size was based on the number of referrals generated by the randomised GPs, using an intention to treat analysis (i.e. comparing the appropriateness of referrals from those exposed and those not exposed to the TAG intervention). Assuming 10 mental health teams each receive 24 referrals per month for 6 months (1440 in total), of which 65% (936) come from primary care, and 90% (842) come from participating GPs, then with equal numbers of GPs randomised into the two groups, 421 referrals would be generated per group. Referrals from individual GPs were likely to be correlated. The size of this correlation is unknown, but assuming 5 referrals per GP, this sample size would accommodate a value of intra-class correlation up to 0.2 (design effect 1.8; effective sample size 234 per group). In the TAG study 20 out of 96 referrals (approximately 20%) were independently blind-rated as inappropriate. This sample size would therefore allow a difference to be detected in the proportion of inappropriate referrals (as rated by the mental health team) between the groups of 10% (i.e. a drop to 10% in the intervention group) with a power of 83%, using a significance level of p=0.05.

In the event 1773 referrals to the 11 participating community mental health teams were obtained, of which 1061 were from GPs participating in the study. On average, there were 14.7 referrals to teams per GP practice (Croydon = 15.2, Manchester = 13.4) and 3.8 per GP (Croydon = 3.9, Manchester = 3.3).

2.6 Inclusion and exclusion criteria

The **inclusion criteria** for GP practices were either having referred to the relevant CMHT in the past six months or providing care for patients who reside in the CMHT catchment area. All identified GP referrers were approached and given the opportunity to opt in or out of the study, with the exception of a small proportion of GPs in Croydon who were assumed to have opted in after repeated failed attempts to make contact, and the provision (by letter) of a telephone number to call if they wished to opt out at any time. This procedure was agreed by the Steering Group (Section 2.7.5).

2.7 Implementation

2.7.1 Staffing

Funding was provided for a total of three junior research workers, one senior research worker (project co-ordinator) and one half-time secretary. The senior researcher was employed for 21 months to oversee the clinical trial,

and the secretary (0.5wte) for 21 months to provide administrative support for the study. Of the three junior research workers, two were employed to work in Croydon and one in Manchester. The Croydon junior research workers were employed for 15 months and the Manchester junior researcher for 18 months to assist in running the trial. Croydon staff were employed by and based at the Institute of Psychiatry, and supervised by Dr Slade. The Manchester researcher was employed by and based at the University of Manchester, and supervised by Dr Chew-Graham and Prof Gask.

A staffing change occurred in July 2005 when the original senior researcher left the study. A junior research worker in Croydon was moved into this senior post, which then created a vacancy for a junior research worker in Croydon with three months of funding remaining. This vacancy was filled.

2.7.2 Developing forms

Information and agreement

In the first three months of employment, the senior researcher created the information and participation agreement sheets for:-

- GP practices (Appendix 1)
- mental health teams (Appendix 2 & 3)
- other participating services (Appendix 4 & 5):

Croydon Primary Care Counselling Service

Croydon Psychology Service

Croydon Psychotherapy Service

An Ethics Committee application was also prepared and submitted. Ethical approval (Ref: 04/MRE11/8) was granted on 10^{th} August 2004.

Additionally, a logo was created for the study (*Appendix 6*). This was designed to be eye-catching and easy to identify with the study.

TAG Packs

TAG referral packs for Croydon were developed in September/October 2004 and printed in November 2004. After consultation with local GPs, administrators and the Local Implementation Group, only TAG score sheets were printed for Manchester.

Croydon

In Croydon, the TAG referral pack augmented the primary care protocols already in use, and was undertaken in close collaboration with the Interface Project that is underway to improve primary-secondary care working. It comprised a pre-printed A4 pad of TAG forms (*Appendix 31*), the cover of which was customised to the local service, since local tailoring of information

has been shown to increase uptake of a practice change (Lomas, 1993). Each TAG pack comprised:

- A front cover (Appendix 7), including:
 - guidance on the information which should appear in the referral letter – background and social history, details of presenting problems, interventions tried and outcomes achieved, reason for referral, and role(s) expected of the CMHT (Pullen & Yellowless, 1985; Strathdee, 1990);
 - evidence-based guidance on referral thresholds a request to explicitly state why specialist mental health care is indicated when the TAG score is less than 5; and
 - local addresses for mental health teams and other agencies, which were identified through the active involvement of local service user organisations, Primary Care Organisations, and secondary mental health teams.
 - An inside front cover of evidence-based checklists (Appendix 31), giving guidance on what to consider when deciding severity for each of the seven TAG domains (which would be visible when the GP was completing the TAG score sheet).
 - A pad of TAG score sheets (*Appendix 31*) on one side, for completion and appending to the referral letter.
- A back cover with instructions for completing the TAG (*Appendix 31*).

This design was compatible with primary care style of working, and was intended to be seen as the 'referral form' for referring to adult mental health services.

Before being printed, the TAG pack was presented to the Local Implementation Group with two different layouts. The group (in particular members of the group who were GPs) were asked for their opinions on which layout was preferable, and whether the TAG pack in general seemed easy to understand and use. Feedback was that both layouts were easy to understand and use, with slight preference on aesthetic grounds for one.

Manchester

All teams in Manchester received their referrals on an existing A4 two-page standardised pro forma, which had been revised and updated prior to the study in collaboration with all stakeholders (*Appendix 28*). This form was designed to collect information on the following:

- Name/details of referrer
- Patient demographics
- Psychiatric history
- Medical history
- Current treatment/medication

- Risk assessment
- Reasons for referral

Following consultation with GPs and administration staff at all intervention practices, it was agreed that the TAG questionnaire would be attached to the existing referral form, thus ensuring maximum possibility of the TAG being completed. All intervention practices were provided with:

- 4 x 100 TAG scoresheet pads
- 8 laminated copies of the TAG completion guidelines. This includes evidence-based checklists, giving guidance on what to consider when deciding severity for each of the seven TAG domains. *(Appendix 31).*
- A reminder poster to be placed in a prominent place in each surgery room which also contained contact details of the research worker should any queries be raised (*Appendix 29*).

Rating Referral Form

The CMHT referral rating form (*Appendix 32*) was also developed. It was designed to be easy to use, and recorded:

- Clinical and socio-demographic details about the referred patient from the referral letter – client name (to assist with later data collection), date of birth, gender, ethnicity and clinical diagnosis. Tick-boxes were used for gender, ethnicity and diagnostic groups;
- 2. **Referrer details**, with a list of all previously identified referrers (without any indication of allocation status, to minimise bias) and their unique identifier numbers for use as appropriate, and space for recording the name and role (*e.g.* GP, other CMHT) of a new referrer where necessary;
- 3. **A Likert scale to rate referrals** (considering both the referral letter and, where enclosed, the TAG) for quality of information to inform decision-making about (i) appropriateness of the referral, (ii) urgency, and (iii) which professional should make the initial assessment;
- 4. Whether a completed **TAG** was attached to the referral, and if it contributed to team decision-making about the referral.
- 5. An additional question was added to the referral rating form asking teams to give their opinion on whether the referral was **appropriate** for their service and, if not, why not.

The precise format and content of the CMHT rating form was finalised following piloting. Piloting involved the researchers testing its use during CMHT meetings.

The rating referral form, along with the TAG pack, were sent for approval to the Director of Adult Mental Health Services in Croydon, and approval was received for their use. In Manchester, approval for the rating referral form and proposed administration of the TAG was sought by members of the Local Implementation Group and team leaders of the CMHTs.

Service Usage Data

In October/November 2004, a form was created for collection of service usage data (*Appendix 26*). The aim of this form was to collect information from GP practices regarding the contact rates of referred patients in the 6 months before referral and the period after referral. This form was designed to be as simple to use as possible, and to minimise the amount of time taken by practice staff to complete it. Comments on this form were received from a number of GPs, who in general considered it to be straightforward and easy to complete.

Interview Schedules

In July-November 2005 semi-structured interview schedules for use with control and intervention group GPs were developed (*Appendix 10 & 11*). The interview schedules explored factors associated with making a referral and expectations about the mental health team response to referrals. Intervention group GPs were additionally asked about perceptions of the feasibility, usefulness, benefits and barriers to using the TAG. The schedule was piloted with GPs in April/May 2005, and amended accordingly. As part of an inductive process, the schedule continued to be informed throughout the interviews.

In May 2005 a semi-structured interview schedule for use with mental health team leaders was developed (*Appendix 14*). This was informed by themes emerging from the pilot GP interviews and explored similar areas.

In September 2005, the team leader schedule was also used in semistructured interviews with a small sample of Psychiatrists.

Blind Rating Referrals

In June 2005, a sample of referrals were prepared for blind rating (see below in section 'Blind Rating Referrals' for further details).

2.7.3 Project management

Dr Slade had overall responsibility for the successful completion of the study. The four main elements of the study were each overseen by applicants with specific expertise:

- the qualitative research by Dr Chew-Graham
- the quantitative research by Dr Slade
- the health economic analysis by Dr McCrone
- the statistical analysis of quantitative data by Dr Leese

Local Implementation Group

The purpose of the Local Implementation Groups (LIG) was to aid local implementation of the TAG, and assist with local issues which may come up in the evaluation.

 Croydon local implementation group
Primary care
Dr William Barclay (Croydon GP, mental health lead)
Dr Noureen Chaudery (Croydon GP, mental health lead)
Dr Subhash Chitkara (Croydon GP, mental health lead)
Dr Sally Found (Croydon GP)
Dr Henk Permentier (Croydon GP)
 Simon Vearnals (Head of Croydon Primary Care Counselling Service)
Secondary care
Steve Davidson (Croydon Borough Director, SLAM)
Dr Caron Gaw (Borough Head of Psychology)
Dr Madeleine Hicks (Consultant Psychiatrist)
Dr Frank Holloway (Consultant Psychiatrist, Clinical Director)
Dr Anita Timans (Head of Croydon Psychotherapy Service)
Other local collaborators
John Haseler (Mental health and substance abuse commissioning lead, Croydon PCT)
David Jobbins (Locality Director, Croydon PCT)
Richard Pacitti (Chief Executive, MIND in Croydon)
Michael Knight (Service User)
Research team
Ahadu Shekour (Croydon Research Worker)
Mairi Stewart (Croydon Research Worker / Project Co-ordinator)
Jo Wardle (Project Co-ordinator)
Sarah Sheppard-Wright (Project Secretary)
Mike Slade (Lead Investigator)

Manchester local implementation group	
Primary care	
Ceri Dornan (General Practitioner, Mental Health Le Manchester)	ead,
Sue Saltmore (Clinical Psychologist, Primary Care)	
Secondary care	
Sue Timmons (G Grade Staff Nurse, Manchester So	outh Team 3)
Joy Wales (Team Leader, Chorlton & Whalley Rang	e CMHT)
Kay Wilson (G Grade Staff Nurse, Manchester Sout	h Team 3)
Other local collaborators	
Frank Margison (Locality Director, Mental Health, M	lanchester)
Research team	
Carolyn Chew-Graham <i>(Senior Lecturer, Primary C</i> Manchester)	are,
Linda Gask (Reader in Psychiatry, Manchester)	
Carolyn Montana (Research worker)	

The Local Implementation Group met in October 2004 (Croydon) and 5 times between October 2004 and April 2005 (Manchester) and gave input on matters ranging from TAG pack development to formatting of the rating referral form, the benefits of identifying practice caseloads and development of the semi-structured interview schedule.

Steering Group

The Steering Group gave expert advice to inform the scientific content of the study, to ensure the local and national relevance of the study, and to advise on dissemination strategies.

Dr Carolyn Chew-Graham, University of Manchester

Prof Linda Gask, University of Manchester

Dr Morven Leese, Institute of Psychiatry

Dr Paul McCrone, Institute of Psychiatry

Mauricio Moreno, Institute of Psychiatry

Dr Robin Powell, Park Royal Centre for Mental Health

Sarah Sheppard-Wright, Institute of Psychiatry

Dr Mike Slade, Institute of Psychiatry

Professor Graham Thornicroft, Institute of Psychiatry

Professor Andre Tylee, Institute of Psychiatry

Jo Wardle, Project Co-ordinator

The Steering Group met on 6 occasions between July 2004 and September 2005.

Trial Steering Committee

The Trial Steering Committee comprised:

Helen Blackwell, service user representative

Dr Richard Byng, GP member

Dr Jocelyn Catty, Consultant Psychiatrist member (Chair)

The Trial Steering Committee met in December 2004, and disbanded (by email) in November 2005.

2.7.4 Networking and liaison

The study was advertised prominently throughout Croydon and the relevant services in Manchester, using existing networks of voluntary and statutory sector collaborators. The intention was to predispose GPs in the intervention group to the practice change. An International Standard Randomised Controlled Trial Number was obtained (ISRCTN86197914), and details of the clinical trial were recorded on an electronic register (Current Controlled Trials – www.controlled-trials.com).

The study was presented to 10 community mental health teams in August 2004, allowing time for discussion and negotiation. Research workers subsequently made arrangements to attend the weekly referral meetings. In addition, all Consultant Psychiatrists were informed of the study via posted information sheets (*Appendix 2*).

Croydon

Additional services were approached in Croydon for possible participation in the study. These were services identified as receiving a high proportion of their referrals from GPs within the catchment area:

- Primary Care Counselling Service
- Home Treatment Team
- MIND
- Psychology Service
- Psychotherapy Service

They were asked if intervention GPs participating in the study could be requested to include a completed TAG with their referral. Additionally, services were asked to complete a rating referral form for every referral (including those from both GPs and all other referrers) received by their service. The purpose of this was to provide supplementary data to the main trial, and allow for better understanding of shifts in referral patterns during the intervention. After discussion, MIND chose not to participate, and the Home Treatment Team withdrew from participation at the beginning of the trial. The remaining services (Primary Care Counselling Service, Psychology and Psychotherapy Services) agreed to participate. For the intervention group, the involvement of the Primary Care Counselling Service allowed comparison between referrals to primary and secondary care, thus identifying whether TAG discriminates between referrals to these two agencies.

The study was discussed with the following stakeholders:

- Managers in the secondary integrated adult mental health service: Borough Head (Steve Davidson), Community Services Manager (Ian Tero).
- Croydon Primary Care Trust: Mental Health & Substance Abuse Commissioning Lead (John Haseler).
- Surrey Local Medical Committee.

The study was also presented to the Croydon Mental Health Development Meeting in July 2004, who were then provided with updates throughout the trial.

A letter about the study was sent to all Practice Managers within the study catchment areas (*Appendix 16*). Additionally, a letter was sent to practices from Steve Davidson, Director of Adult Mental Health in Croydon (*Appendix 19*). These letters were intended to raise awareness of the study before direct contact was made by research workers.

The main non-GP referrers to the mental health teams were determined by the referral audits conducted prior to the study. These services (see list below) were sent TAG packs and a letter from the Director of Adult Mental Health in Croydon encouraging them to attach a TAG when referring to mental health teams (*Appendix 17*)

- Rainbow medical centre
- Oaks resource centre (alcohol/substance abuse)
- Lennard Road Assessment Unit (homelessness)
- Women's service
- Accident & Emergency
- Housing Services
- Mother and Baby Team
- Social services
- Westminster Pastoral Foundation (Counselling Service)
- Croydon Crown Court Probation Service (Croydon)
- MIND Counselling Services

Manchester:

The study was discussed with the following stakeholders:

- Frank Margison Locality Director Manchester Mental Health and Social Services Trust
- Sue Assar Chief Executive Central Manchester Primary Care Trust
- Adrian Mercer Central Manchester Primary Care Trust
- Mental Health Task Groups South and North Manchester Primary Care Trusts

A letter about the study was sent to all Practice Managers within the study catchment areas (*Appendix 16*). These letters were intended to raise awareness of the study before direct contact was made by research workers.

The main non-GP referrers to the mental health teams were determined by the referral audits conducted prior to the study. These services (see list below) were visited by the Research Worker to discuss involvement in the study. Initial agreement to participate was given and each service was sent TAG packs and a letter encouraging them to attach a TAG when referring to mental health teams (*Appendix 30*).

- SAFIRE unit 72 hour emergency assessment centre, covering all of Manchester; Maureen Chesworth – Team Leader)
- A & E Psychiatric liaison services (Manchester Royal Infirmary; Louise Douglas Mental Health Liaison Team)
- Primary Care Psychology services (covering all of Manchester; Richard Barnard – Clinical Psychologist)
- Contact Centre (Social Services helpline, Central Manchester; Jean Spragg

 Centre Manager)

The data generated from other referrers was not the main focus of this study, but were comparable with GP referrals and supplemented the investigation of (i) appropriateness of TAG-accompanied referrals (Objective 1); and (ii) Croydon service usage data (Objectives 2 and 3).

2.7.5 Participant recruitment

Researchers contacted all GP practices within the team catchment areas. Initially, a letter was sent to Practice Managers in the hope of raising awareness of the study *(Appendix 18)*. This was followed up by a telephone call to the practice. The purpose of this call was to explain the study to the practice manager and, if possible, to arrange for a visit to the practice in order to present the study to the GPs. Researchers experienced difficulty in contacting practice managers in this way – contact sheets were kept showing an average attempt rate of 5.5 phone calls (Croydon = 5, Manchester = 6) before receiving either:

a) Agreement for researchers to visit practice to present study, or;

b) Refusal for researchers to visit practice, and decision to opt out of study.

For those practices where researchers were unsuccessful in contacting the practice manager by telephone, the initial information letter was resent either by fax or by post then telephone contact was again attempted. In those cases where telephone contact was still unsuccessful, a letter was faxed or posted direct to the Senior Partner in the practice (*Appendix 18*). After discussion with the Steering Group, it was agreed that this letter should state that agreement to participate would be assumed unless the practice indicated that it wished to opt-out. A telephone number, email address, fax number and postal address was provided for practices to contact if they wished to opt out.

In Manchester, lack of contact with the researcher was taken as unwillingness to participate in the study, and therefore practices were designated as opting out.

The number of telephone contacts to arrange a visit and the number of practices visited are shown for each site in Table 4.

	Mean number of contacts to arrange visit	Number of practices visited
Croydon	5	48
Manchester	6	12
Both sites	11	60

 Table 4 Phone-calls and visits to practices during recruitment

In Croydon, 9 practices opted out of the study before a researcher had visited the practice. A further 1 practice opted out after being visited, giving a total of 10 opted out practices. Reasons for these opt outs are shown in Table 5.

Researchers visited 48 practices in total in Croydon, providing lunch for GPs and Practice Managers while presenting the study, with 47 then agreeing to participate.

The research worker visited 12 practices in Manchester, attending practice meetings, and presenting a summary of the study. Agreement to participate was secured at all these practices.

A total of 72 practices agree to participate out of 100 eligible for inclusion. In Croydon, 55 out of 65 practices (85%) agreed to participate. Of these, 8 were assumed to agree to participate (see above). In Manchester 17 out of 35 practices (49%) agreed to participate.

Reason Given	Croydon (n)	Manchester (n)	Total (n)
Already have too much paperwork	2	7	9
No reason given	1	3	4
Too busy	3	9	12
Doesn't see the benefit for the practice of the research	2	2	4
Not interested	1	3	4
Thought TAG was too complicated	1	-	1
Not interested unless paid	1	-	1

2.7.6 Reasons for opting out

Table 5 Reasons given for opting out of the study

Twenty-eight GP practices (Croydon=10, Manchester=18) chose to opt-out from the study, with one further practice being excluded due to not meeting the inclusion criteria. Of these, 21 practices (Croydon=7, Manchester=14) did not wish to receive an explanation of the study before deciding whether or not to participate. This was usually experienced as researchers being unable to contact doctors directly, receiving no response to the letter sent to the practice explaining the study, or by practice staff simply stating that they were not interested in participating in any research regardless of content.

7 GP practices (Croydon=3, Manchester=4) listened to the explanation of the study before choosing not to participate. This was either because they couldn't perceive the benefit of the study to their practice or felt too busy.

2.7.7 Intervention – data collection

Participating GP practices were sent a letter informing them of their allocation status (*Appendix 8 & 9*). GPs from practices in the **intervention group** were asked to complete and attach a TAG in addition to normal referral information (letter in Croydon, form in Manchester) whenever referring to the community mental health teams. GPs from practices in the **control group** were asked to continue with their usual referral practice.

Other identified referrers to community mental health teams were also asked to complete and attach a TAG when referring to the teams.

Mental health teams were asked to complete the CMHT rating form (Appendix 32) for all received referrals (for those with TAG and without) which included: (a) clinical and socio-demographic details about the referred patient; (b) a Likert scale to rate referrals for quality of information to inform decisionmaking about (i) appropriateness of the referral, (ii) urgency, and (iii) which professional should make the initial assessment: (c) whether a completed TAG was attached to the referral, and if it contributed to team decisionmaking about the referral, and: d) time taken to discuss referrals (*i.e.* from picking up the referral letter to moving on to the next topic). The appropriateness measure (b(i) above) was the primary outcome measure for the trial. Study research workers attended each meeting in order to complete as much of the form as possible, in order to minimise burden on the team. It was initially envisaged that researchers could progressively reduce attendance at the meetings, with team members taking over responsibility for completing the rating referral forms. However it became apparent that team members would be unable to fully complete the forms during meetings due to pressures of work and time. Researchers were often able to complete sociodemographic and clinical characteristics from accessing the referral letter, while team members were verbally requested to give their responses to the Likert scale questions.

The 11 community mental health teams held a total of 14 referral meetings per week (8 in Croydon, 6 in Manchester)

	Croydon	Manchester	Total
Referral meetings held (n)	302	206	508
Referral meetings attended by researcher (n)	293	158	451
Meetings where data were collected by mental health team member (n)	4	48	52
Meetings providing	5	0	5

Table 6 Referral meeting attendance

no data

A total of 9 meetings in Croydon were unattended by a researcher due to illness, holiday leave or timetable clashes caused by meetings being rescheduled. In 4 cases, data were collected by a team member, while the remaining 5 unattended meetings yielded no data.

In Manchester, a total of 48 meetings were unattended by a researcher, usually due to timetable clashes. In all cases, data were collected by a team member.

A final total of 2434 rating referral forms were collected during the trial (Croydon CMHTs = 1308, Croydon other services = 661, Manchester CMHTs = 465).

The time taken to discuss referrals was recorded by researchers attending the team meetings from 1^{st} April 2005. This provided information about whether deciding how to respond to the referral was quicker for referrals from intervention group GPs than from control group GPs.

Referrals were monitored to identify if a TAG-accompanied referral letter was received from a control group GP. When this occurred, which it did on 2 occasions (Croydon), then liaison took place with the relevant referrer (via telephone) to clarify their allocation status.

Teams were blind to the allocation status of the referring GP practice, but could have inferred intervention group status from the receipt of the TAG.

2.7.8 Monitoring progress

Researchers kept a monthly tally of the number of rating referral forms collected, and of the number of TAGs received with referrals. This allowed for identification of the % of referrals being received from intervention group GPs with TAGs attached as a proportion of the total number of referrals sent by intervention group GPs. It became apparent in the early months of the trial that there was a low take-up of the intervention.

	Jan	Feb	Mar	Apr	Мау	June	July	Aug	Sept	Total
Croydon CMHTs										
Control refs	49	52	67	63	53	46	44	39	42	455
Intervention refs (n)	47	37	58	43	46	45	32	28	43	379
TAG attached to Intervention ref (n)	5	11	15	18	15	15	11	5	13	108
TAG attached to Intervention ref(%)	11 %	30 %	26 %	42 %	33 %	33 %	34 %	18 %	30 %	29%
Manc CMHTs										
Control refs (n)	5	10	9	14	7	8	13	13	10	89
Intervention refs (n)	5	16	10	19	14	22	20	17	15	138
TAG attached to Intervention ref (n)	0	6	1	4	0	3	3	2	1	20
TAG attached to Intervention ref(%)	0%	38 %	10 %	21 %	0%	14 %	15 %	12 %	7%	13%
Both sites										
Control refs (n)	54	62	76	77	60	54	57	52	52	544
Intervention refs (n)	52	53	68	62	60	67	52	45	58	517
TAG attached to Intervention ref (n)	5	17	16	22	15	18	14	7	14	128
TAG attached to Intervention ref(%)	10 %	32 %	24 %	35 %	25 %	27 %	27 %	16 %	24 %	24%

 Table 7 Running totals of referrals and TAG implementation

2.7.9 Improving intervention take-up

Following discussion with the Steering Group, Trial Steering Committee, Croydon Primary Care Trust, the Mental Health Development Group, the Mental Health Research Network, and Local Implementation Groups a number of steps were taken to improve take-up of the intervention in Croydon and Manchester:

- Identifying the top five referring intervention group practices and host a meeting (with lunch) for them in order to reinforce TAG use (Croydon only).
- Follow-up telephone calls to all low-mid referring intervention group practices to raise awareness of the study and allocation status (Croydon only).
- Send reminder/encouragement letters to all low-mid referring intervention group practices (*Appendix 19*) (Croydon only).
- Extend the trial by 3 months in order to collect more TAG-accompanied referrals (Croydon and Manchester).
- A newsletter (*Appendix 33*) was sent to all participating parties (Croydon only)
- Follow-up calls to Intervention group GPs and Practice Mangers referring without a TAG to remind of allocation status and encourage future use of TAG (Manchester only). This would be followed by a letter. (*Appendix 20*)
- Reminder posters (*Appendix 29*) were sent to Practice Managers to be placed in prominent positions in the practice. These were issued on a monthly basis to improve awareness of the study (Manchester only).

All of these steps were then taken, and approval from the funder and local services to extend the trial to September 30th 2005 was received. All practices and participating services in Croydon and Manchester were then sent a letter informing them of the extension (*Appendix 21*).

Take-up of the intervention remained low. It was agreed by the Steering Group that no further steps could practicably be taken.

2.8 Blind rated referrals

In July/August 2005 a sample of 100 referral letters (minus the TAG, where included) received by community mental health teams from both intervention and control group GPs were anonymised. These were then independently rated by a panel blinded to allocation status. The aim of this exercise was to investigate any discrepancy between the live rating made in the team meeting and the mean rating made by experts.

The referrals were assessed with the same form used during referral meetings (*Appendix 32*).

A panel of 5 raters was chosen, meeting the following criteria:

- a) Member of a participating community mental health team (Croydon)
- b) Practicing mental health professional with at least 5 years experience
- c) Different profession to other panel members.

The panel consisted of a Consultant Psychiatrist, Occupational Therapist, Community Psychiatric Nurse, support Clinical Psychologist and Social Worker. Panel members were provided with information sheets (*Appendix 23*) and signed participation agreements (*Appendix 22*).

Each panel member was sent 60 anonymised referrals from a potential 100 samples.

2.9 Data cleaning and quality assurance

Data were entered as received. Database queries were run to identify missing data. Research workers then made efforts to procure this missing information by a variety of methods:

- a) asking team members and administrative staff to provide information via phone calls, emails, and face-to-face visits.
- b) through research workers accessing paper patient systems (for example, team diaries and patient files) with necessary permissions.
- c) through research workers with necessary permissions accessing electronic patient systems (Croydon only).

Numerous queries were then performed by researchers to check for errors in data collection & inputting.

Sample Query

All referrals with a date of birth which did not make the referred patient between 18 and 65 years of age (the age group served by the mental health teams) were identified and double-checked for error. Checking took the form of (i) comparing the computer entry with the original rating referral form for inputting error, and (ii) checking the date of birth on paper or electronic patient systems.

Additionally, researchers ran queries to check that linked pieces of information made sense.

Sample Query

Any referrals which were marked 'returned to referrer' or 'referred on to another service' should have an empty 'date of appointment offered' field (because no appointment would be offered by the team if the referral was rejected). Therefore any showing a date of appointment would be checked for error.

A list of questions was compiled and queries then performed to answer these questions by two research workers, working independently. Results were then compared, and answers sought for any discrepancies.

Sample Questions

How many referrals were sent in total to Croydon CMHTs?

How many referrals were sent by Control GPs in Manchester?

How many referrals were offered a date of appointment by the teams?

2.10 Quantitative analysis

The quantitative hypotheses were tested by comparing the appropriateness of the mental health team rating for referrals from GPs in the two groups. Outcomes were compared at follow up using chi-squared tests and independent sample t-tests. The secondary outcomes were on a five-point scale converted to binary variables. The primary outcome (appropriateness of referral) and two secondary outcomes (ease of rating urgency and identifying the correct professional) were compared at follow up using chi-squared tests. An intention-to-treat analysis was performed (analysing all those referrals for which data were available according to the trial arm to which the practice had been assigned). It was also possible to perform an 'as received' analysis of the referrals actually accompanied by a TAG with all those not so accompanied within the intervention group in order to compare those referrals where the TAG was actively chosen with those where it was not, despite being available. Based on return rates from (Slade et al, 2001), it was anticipated that the former group would comprise approximately 75% of the intervention group (giving 316 referrals). Site differences and GP practice effects were also investigated, as were socio-demographic and clinical characteristics of referrals rated as inappropriate by the CMHT.

Since practice was the unit of randomisation and referrals from a given practice were potentially correlated, the analyses were repeated using a random effects logistic regression to estimate adjusted odds ratios, with the practices entered as random effects. This analysis, which removes correlation within practices, also controlled for site as a fixed effect. Detailed results of the logistic regressions are not reported because they were essentially similar to those from the simple analysis reported in tables (unless stated otherwise) but the results are available from the authors. However, the intra-class correlation from this analysis is reported for the primary outcome since this is a parameter potentially useful in the design of future studies.

For those referrals accompanied by a TAG an additional analysis was performed to identify the characteristics associated with a good outcome (i.e. an appropriate referral). Socio-demographic characteristics and the seven domains of the TAG were potential predictor variables and logistic regression with successive removal of non-significant variables was performed.

Stata version 8 (StataCorp, 2005) was used for the analysis.

	Estimated Start	Estimated Finish	Actual Start	Actual Finish
RESEARCH STAFF	22/04/04	24/02/06	22/04/04	24/02/06
Employ research secretary	22/04/04	26/04/04	22/04/04	26/04/04
Employ project co-ordinator	01/06/04	24/02/06	01/06/04	24/02/06
Develop project co-ordinator knowledge of RCT methodology	01/06/04	24/02/06	01/06/04	24/02/06
Employ 2 Croydon research workers	03/06/04	28/10/05	03/06/04	28/10/05
Recruitment	03/06/04	07/07/04	03/06/04	07/07/04
Training as required.	01/07/04	28/10/05	01/07/04	28/10/05
Research workers induction	26/07/04	02/08/04	26/07/04	02/08/04
Research worker appraisals	28/01/05	25/02/05	28/01/05	25/02/05
Employ 1 Manchester research worker	02/08/04	24/02/06	02/08/04	24/02/06
Recruitment	02/08/04	03/09/04	02/08/04	03/09/04
Support as required.	03/09/04	24/02/06	03/09/04	24/02/06
Acquire necessary resources	01/06/04	29/10/04	01/06/04	29/10/04
Regular TAG Team meetings (2-3 weeks)	03/09/04	24/02/06	03/09/04	24/02/06
APPROVALS & APPPLICATIONS	30/06/04	01/08/05	30/06/04	01/08/05
M-REC applications & response	30/06/04	30/07/04	30/06/04	30/07/04
M-REC amendments	30/11/04	30/11/04	30/11/04	30/11/04
M-REC Addition (Inc Name/new Manc CMHT)	01/02/05	01/02/05	01/02/05	01/02/05
LREC applications	30/08/04	30/09/04	30/08/04	30/09/04
NRR Follow-up application	11/08/04	17/08/04	11/08/04	17/08/04
Apply to PCT Croydon	12/12/04	01/08/05	12/12/04	01/08/05
Addendums to PCT	12/12/04	12/12/04	12/12/04	12/12/04
Advise Local Medical Committee	01/08/05	01/08/05	01/08/05	01/08/05
DEVELOP FORMS	28/04/04	20/06/05	28/04/04	20/06/05
Write Study Protocol	09/07/04	10/11/04	09/07/04	10/11/04
TAG study logo	30/08/04	30/08/04	30/08/04	30/08/04
CMHT Information Sheets (Croydon & Manchester)	21/06/04	21/06/04	21/06/04	21/06/04
CMHT participation agreement	23/06/04	23/06/04	23/06/04	23/06/04
	28/04/04	24/09/04		24/09/04

Chart 2 TAG study GANTT

continued	Estimated Start	Estimated Finish	Actual Start	Actual Finish
Other Referred to services participation agreements	27/08/04	24/09/04	27/08/04	24/09/04
Psychiatrist information sheet	02/08/04	02/08/04	02/08/04	02/08/04
GP Information Sheet (Croydon & Man.)	23/07/04	19/11/04	23/07/04	19/11/04
GP interview information (Croydon & Man)	23/07/04	19/11/04	23/07/04	19/11/04
GP interview agreement	23/07/04	20/12/04	23/07/04	20/12/04
GP interview schedule (qual. interview)	21/06/04	30/11/04	21/06/04	30/11/04
TAG Referral Rating Form	21/06/04	30/11/04	21/06/04	30/11/04
Develop/update TAG V2	01/10/04	01/10/04	01/10/04	01/10/04
Develop Data Map	30/07/04	30/07/04	30/07/04	30/07/04
Develop Data Fields for Access database	10/08/04	16/08/04	10/08/04	16/08/04
Develop Implementation Strategy	12/08/04	12/08/04	12/08/04	12/08/04
Service Use Data forms	01/10/04	30/11/04	01/10/04	30/11/04
Psychotropic prescription patterns (GP) BL & 6/12 - & cost	01/10/04	30/11/04	01/10/04	30/11/04
GPs - ref rates to Voluntary Sector, stat health & social care agencies	01/10/04	30/11/04	01/10/04	30/11/04
Ref patients - rate of PC contact previous 6/12	01/10/04	30/11/04	01/10/04	30/11/04
Update TAG format for study use	29/10/04	29/10/04	29/10/04	29/10/04
Develop TAG Referral Pack	06/10/04	29/10/04	06/10/04	29/10/04
Pilot check the Referral Pack with LIG GPs	08/11/04	12/11/04	08/11/04	12/11/04
Develop TAG response pack - CMHT	08/10/04	29/10/04	08/10/04	29/10/04
Pilot check the rating response pack	15/11/04	16/11/04	15/11/04	16/11/04
CMHT Director approval for Forms dev'ped	18/11/04	19/11/04	18/11/04	19/11/04
Print TAG referral/response packs	19/11/04	26/11/04	19/11/04	26/11/04
Deliver Referral/Response packs	23/12/04	23/12/04	23/12/04	23/12/04
Send TAG Packs to other referrers	24/12/04	24/12/04	24/12/04	24/12/04
Develop qual interview schedule for GPs	21/10/04	20/05/05	21/10/04	20/05/05
Pilot Qualitative Interview for GPs	11/04/05	18/05/05	11/04/05	18/05/05
Develop Survey/Interview Schedule for	23/05/05	27/05/05	23/05/05	27/05/05

MHS Team leaders				
continued	Estimated Start	Estimated Finish	Actual Start	Actual Finish
Develop team leader interview information sheets & Agreement form	11/06/04	11/06/04	11/06/04	11/06/04
Develop a tool for the blind referral rating	20/06/05	20/06/05	20/06/05	20/06/05
Develop instructions, info. sheets & Agreement form	18/06/04	18/06/04	18/06/04	18/06/04
COMMITTEES	05/07/04	27/02/06	05/07/04	27/02/06
Organise Steering Group	05/07/04	27/02/06	05/07/04	27/02/06
SG meeting every 2 months	05/07/04	27/02/06	05/07/04	27/02/06
Organise Local Implementation Group	25/10/04	30/06/05	25/10/04	30/06/05
Meetings in October 04, & Sept 05	25/10/04	25/10/04	25/10/04	25/10/04
Update in March & July via newsletter/email	01/02/05	30/06/05	01/02/05	30/06/05
Organise Trial Steering Committee	08/12/04	29/06/05	08/12/04	29/06/05
TSC meeting Dec 04 & Sept 05, email in May/June	08/12/04	29/06/05	08/12/04	29/06/05
NETWORKING	06/04/04	01/04/05	06/04/04	01/04/05
Liaise with Statistician	07/04/04	09/04/04	07/04/04	09/04/04
Liaise with Health Economist	07/04/04	09/04/04	07/04/04	09/04/04
Liaise with Data Manager	07/04/04	09/04/04	07/04/04	09/04/04
Liaise with local key stakeholders	06/04/04	09/04/04	06/04/04	09/04/04
Presentation to MH Development Meeting	15/07/04	15/07/04	15/07/04	15/07/04
Updates to MH Development Meeting	13/01/05	13/01/05	13/01/05	13/01/05
Presentation to CMHT Team Leaders	06/08/04	30/11/04	06/08/04	30/11/04
Update to CMHT T/L	01/04/05	01/04/05	01/04/05	01/04/05
Presentation to CMHT Teams	20/08/04	23/08/04	20/08/04	23/08/04
Liaise with Psychiatric Consultant	23/08/04	23/08/04	23/08/04	23/08/04
Liaise with CMHT Service Director	20/08/04	20/08/04	20/08/04	20/08/04
Primary Care Counselling Services	01/11/04	30/11/04	01/11/04	30/11/04
Psychology Services	01/10/04	29/10/04	01/10/04	29/10/04
Psychotherapies	01/11/04	30/11/04	01/11/04	30/11/04
Home Treatment Teams	01/11/04	01/12/04	01/11/04	01/12/04

	T			1
Mind Counselling Services	01/11/04	30/11/04	01/11/04	30/11/04
Liaison with Surrey LMC	01/09/04	30/09/04	01/09/04	30/09/04
continued	Estimated Start	Estimated Finish	Actual Start	Actual Finish
Letter to Practice Managers	01/09/04	30/09/04	01/09/04	30/09/04
SLAM letter to Practice Managers	01/10/04	29/10/04	01/10/04	29/10/04
SLAM Letter to Other referrers	01/11/04	30/11/04	01/11/04	30/11/04
Liaison with individual GP Practices	01/10/04	30/11/04	01/10/04	30/11/04
PRE-INTERVENTION TASKS	11/06/04	30/06/05	11/06/04	30/06/05
Apply for UK MHRN	01/07/04	05/07/04	01/07/04	05/07/04
Obtain Internat. Standard RCT No.	06/08/04	20/08/04	06/08/04	20/08/04
Apply MRCT	23/08/04	30/08/04	23/08/04	30/08/04
Update IOP Tag website -pre study	07/10/04	14/10/04	07/10/04	14/10/04
NHS STO - Interim Report	06/06/05	08/06/05	06/06/05	08/06/05
Audit CMHTs for general referrer info	01/10/04	30/11/04	01/10/04	30/11/04
Randomisation of GPs - XO by IoP CTU	01/12/04	02/12/04	01/12/04	02/12/04
Randomisation of Manc CMHT No 3 GPs	11/02/05	11/02/05	11/02/05	11/02/05
GP intervention arm databases (C & M)	01/12/04	16/02/05	01/12/04	16/02/05
Advertise study & status to MHS & GPs	11/06/04	11/06/04	11/06/04	11/06/04
Liaise with GP Practices on service usage data -pre TAG	01/12/04	30/06/05	01/12/04	30/06/05
Liaise with PCT on Service usage data - Pre TAG	01/12/04	30/06/05	01/12/04	30/06/05
Liaise with SL&M Pharmacy on Service Usage Data	28/01/05	28/02/05	28/01/05	28/02/05
Audio tape record 1 x '10 CMHT Ref meeting - pre TAG	03/12/04	09/12/04	03/12/04	09/12/04
Advise via letter control GPs of intervention status	21/12/04	21/12/04	21/12/04	21/12/04
Letter with TAG pack to Opt-Out GP Practices	21/12/04	21/12/04	21/12/04	21/12/04
Letter with TAG pack to other referring services	21/12/04	21/12/04	21/12/04	21/12/04
Letter with No. of TAG packs delivered to Intervention GP Practices	23/12/04	23/12/04	23/12/04	23/12/04
Train Duty Officers in Referral Rating Form use	08/12/04	12/12/04	08/12/04	12/12/04
Obtain Letter Boxes at 4 sites	01/11/04	05/11/04	01/11/04	05/11/04
	-		-	

Proforma SAE Envelopes	11/11/04	12/11/04	11/11/04	12/11/04
Rationale noted for opt-outs	28/01/05	28/01/05	28/01/05	28/01/05
continued	Estimated Start	Estimated Finish	Actual Start	Actual Finish
GP Practice Info - Medico's names & No. of rooms.	18/11/04	18/11/04	18/11/04	18/11/04
CMHT Audit for July - Dec 04 (other referrers)	17/11/04	01/12/04	17/11/04	01/12/04
CMHT Audit for July - Dec 04 (Cont & Interv GPs)	19/01/05	17/02/05	19/01/05	17/02/05
Process referrals onto proforma score sheets	23/06/04	24/06/04	23/06/04	24/06/04
Organise panel of raters for GP refer'als	24/06/05	24/06/05	24/06/05	24/06/05
Organise referral info to spread sheet	24/06/04	24/06/04	24/06/04	24/06/04
Organise Access database for referral ratings	28/06/04	28/06/04	28/06/04	28/06/04
INTERVENTION	03/01/05	30/09/05	03/01/05	30/09/05
Attend each CMHT referral review meeting	03/01/05	30/09/05	03/01/05	30/09/05
Note CMHT decision-making process on Rating Form	03/01/05	30/06/05	03/01/05	30/06/05
Note time referral discussed on the RRF	27/01/05	30/09/05	27/01/05	30/09/05
Audio tape record 1 x '10 CMHT ref meeting (Near end of study)	30/06/05	06/07/05	30/06/05	06/07/05
Performance indicators sp'sheet	25/01/05	30/09/05	25/01/05	30/09/05
Obtain agreement & form for payment from GPs for interview	09/05/05	26/08/05	09/05/05	26/08/05
Interview 30 GPs (with semi-structure interview schedule)	09/05/05	26/08/05	09/05/05	26/08/05
ID High/Low GP referrers & hi/low referral agreement GPs for interview	30/05/05	30/05/05	30/05/05	30/05/05
Survey/interview MHS team leads	20/07/05	29/07/05	20/07/05	29/07/05
Liaise with GP Practices on service usage data -post	30/06/05	01/08/05	30/06/05	01/08/05
Liaise with PCT on service usage data - post	30/06/05	01/08/05	30/06/05	01/08/05
Liaise with SL&M Pharmacy on service usage data	26/01/05	28/02/05	26/01/05	28/02/05
Copy XO referral letters for rating by panel blinded to status	02/08/05	02/09/05	02/08/05	02/09/05
Fax reminder to Intervention GP	06/01/05	06/01/05	06/01/05	06/01/05

Practices to start using TAG				
continued	Estimated Start	Estimated Finish	Actual Start	Actual Finish
Letter to intervention Practice Mgrs & GPs remind study started	04/02/05	04/02/05	04/02/05	04/02/05
Update Implementation Strategy	26/01/05	26/01/05	26/01/05	26/01/05
Update GANTT	09/02/05	09/02/05	09/02/05	09/02/05
Write up Consort	22/02/05	22/02/05	22/02/05	22/02/05
Monitor uptake of TAG by Intervention GPs - Monthly	25/02/05	30/09/05	25/02/05	30/09/05
Letter to Intervention GPs re: Reminder to Use TAG for referrals	11/02/05	11/02/05	11/02/05	11/02/05
Reminder letter from Manager Adult MH Services to Intervention GPs	11/03/05	11/03/05	11/03/05	11/03/05
Mentioned in Mental Health Development meeting re: poor uptake	14/04/05	14/04/05	14/04/05	14/04/05
Liaison with PCT re: poor uptake of TAG use by Intervention GPs	14/04/05	14/04/05	14/04/05	14/04/05
Liaison with MHRN re: poor uptake of TAG use by Intervention GPs	21/04/05	21/04/05	21/04/05	21/04/05
Lunches with top 5 referring Intervention GP practices - reminder TAG	25/04/05	04/05/05	25/04/05	04/05/05
Liaise with Trial Steering committee re: uptake to date	03/05/05	10/05/05	03/05/05	10/05/05
Consult with Statistician & Health Economist re: options	16/05/05	25/05/05	16/05/05	25/05/05
Consult with Manager Adult mental health services	18/05/05	18/05/05	18/05/05	18/05/05
Advise NHS-SDO, MREC, LREC, PCT, TSC, SG of extension	24/05/05	31/05/05	24/05/05	31/05/05
Advise MRHN, ISRCTN of extension	01/06/05	01/06/05	01/06/05	01/06/05
Liaise with MH managers & team leaders re: extension	26/05/05	10/06/05	26/05/05	10/06/05
Advise intervention GPs of extension, & provide more TAG packs	27/05/05	27/05/05	27/05/05	27/05/05
Advise control GPs of extension	03/06/05	03/06/05	03/06/05	03/06/05
DATA ANALYSIS	23/04/04	30/09/05	23/04/04	30/09/05
Set up Access database for results	01/12/04	03/12/04	01/12/04	03/12/04
1 x RW update in statistics	14/03/05	14/03/05	14/03/05	14/03/05

1 x RW training in Qualitative methods	01/09/04	29/06/05	01/09/04	29/06/05
continued	Estimated Start	Estimated Finish	Actual Start	Actual Finish
3 x RW training on Qualitative Interviewing in Manc	11/06/04	11/06/04	11/06/04	11/06/04
Input collected data from GPs/PCT (service usage -pre)	01/01/05	01/07/05	01/01/05	01/07/05
Input collected service use data from PCT	01/01/05	01/07/05	01/01/05	01/07/05
Transcribe the CMHT (pre- tapes)	01/01/05	28/01/05	01/01/05	28/01/05
Input collected data from CMHT (rating forms -during)	03/01/05	01/07/05	03/01/05	01/07/05
Check rate of referral for stat power	07/03/05	07/03/05	07/03/05	07/03/05
Input collected data from GPs/PCT (service usage -post)	01/01/05	01/07/05	01/01/05	01/07/05
Input collected service use data from PCT	01/01/05	01/07/05	01/01/05	01/07/05
Format Qualitative Interviewing Scoring	23/04/04	23/04/04	23/04/04	23/04/04
Data Cleaning	01/07/04	27/08/04	01/07/04	27/08/04
QA checks	01/08/05	02/08/05	01/08/05	02/08/05
Data analysis - Quantitative (liaise statistician)	01/09/05	20/09/05	01/09/05	20/09/05
Liaise with health economist re: cost- effectiveness calculated	01/09/05	07/09/05	01/09/05	07/09/05
Liaise with health economist re: pop. level resource implications	01/09/05	07/09/05	01/09/05	07/09/05
Transcribe GP interviews	01/07/05	06/07/05	01/07/05	06/07/05
Transcribe the CMHT (post- tapes)	01/08/05	01/09/05	01/08/05	01/09/05
Process qualitative data: CMHT meetings	01/08/05	30/09/05	01/08/05	30/09/05
Process qualitative data: GPs ints	01/09/05	30/09/05	01/09/05	30/09/05
Data analysis - Qualitative (liaise with Carolyn Chew-Graham)	27/08/04	19/08/05	27/08/04	19/08/05
Analysis of blind referral ratings	17/08/05	19/08/05	17/08/05	19/08/05
Arrange for panel meeting if req.	27/08/04	27/08/04		
DISSEMINATION	20/01/05	07/02/06	20/01/05	07/02/06
Send proforma to Lancet	20/01/05	20/01/05	20/01/05	20/01/05
TAG website updated - commenced	01/07/05	04/07/05	01/07/05	04/07/05

Midway newsletter to key stakeholders.	04/04/05	04/04/05	04/04/05	04/04/05
June report to NHS SDO (no.97)	08/06/05	08/06/05	08/06/05	08/06/05
continued	Estimated Start	Estimated Finish	Actual Start	Actual Finish
TAG website updated - re: July to Sept extension	06/06/05	07/06/05	06/06/05	07/06/05
TAG website update - Post Sept results	25/10/05	25/10/05	25/10/05	25/10/05
Post study meetings with key stakeholders	03/10/05	03/10/05	03/10/05	03/10/05
Post study results summary (newsletter) for key stakeholders	03/10/05	03/10/05	03/10/05	03/10/05
Papers prepared for submission to journals, academia	01/11/05	29/11/05	01/11/05	29/11/05
Discussions with Dept of Health & MHNHS	01/11/05	07/11/05	01/11/05	07/11/05
Final report to NHS - SDO	01/02/06	07/02/06	01/02/06	07/02/06
Consider application for extension, or more funds etc	01/06/05	07/06/05	01/06/05	07/06/05
Present at relevant conference	01/02/06	01/02/06	01/02/06	01/02/06

Section 3: Qualitative methodology

3.1 Audio recording referral meetings

Community mental health team referral meetings were recorded by researchers pre and post intervention using an audio tape-recording machine.

3.2 GP interviews

3.2.1 GP interview schedule

A GP interview schedule was devised (*Appendix 10 & 11*) that asked questions based around determining the GPs decision making processes when dealing with patients with mental health problems. It was also designed to elicit thoughts and feelings about changes within the structure of mental health services, the role of the CMHT, how GPs negotiated this system and how they assessed risk in patients. Intervention GPs were asked additional questions based around their experience of the use of TAG (*Appendix 11*).

The schedule was progressively revised in the light of data extracted from earlier interviews using the concept of framework analysis. Constant comparison methods identified between similar themes associated with agreement between GP and mental health team and factors associated with use of the TAG. Perceived benefits and barriers to its use by GPs were also identified and researchers aimed to achieve theoretical saturation in these areas.

GPs were provided with an information sheet about the interview (Appendix 12). Each interview was introduced with a similar statement, audio recorded and professionally transcribed. GPs received £100 for their participation and written consent (Appendix 13) was obtained by each participating GP.

3.2.2 GP recruitment

GPs participating in the study were asked to be involved in the interviews via an invitation letter (*Appendix 27*) in Manchester and telephone call in Croydon. Letters sent in Manchester were later followed up with telephone calls.

GPs were selected to include high and low level referrers, and GPs with high and low agreement rates with mental health teams (identified through data collected via rating referral forms). Researchers concentrated on interviewing GPs from each of these groups, in addition to making efforts to balance male/female ratios; dispersion of age/experience of GPs and even numbers from control and intervention groups.

3.3 Team leader interviews

A team leader interview schedule was devised (*Appendix 14*) that asked questions about the role of the CMHT and referral issues centred on those

received from GPs. It was also designed to elicit perceived benefits and pitfalls of using TAG. The same schedule was used for each team leader.

All team leaders in Croydon and Manchester were invited to participate. The interviews were audio recorded and professionally transcribed. Participating team leaders were given information sheets (*Appendix 15*).

3.4 Psychiatrist interviews

Themes and issues raised within the GP interviews led researchers to believe that interviewing team Psychiatrists would provide valuable insights.

Consultant Psychiatrists were identified and approached by telephone and in person to ask if they would agree to be interviewed.

Consultant Psychiatrists were interviewed using the team leader interview schedule (*Appendix 14*). The interviews were audio recorded and professionally transcribed.

3.5 Qualitative analysis

Thematic analysis of the first round of transcripts of team decision making was carried out using framework analysis (Ritchie and Spencer 1994) with the aim of identifying emerging themes around decision making used by the teams in deciding how to respond to the referral. Constant comparison (Strauss 1987) was used on the second rounds of transcripts in order to identify whether the decision making processes by teams responding to referrals had changed, and whether this differed between referrals with or without a TAG. Further analysis of this second round explored the perceived benefits of TAG, and identified any barriers to its use by the mental health team in informing their decision-making. Interview transcripts were analysed thematically by constant comparison, with themes agreed through discussion. The interview schedules were modified throughout the study and disconfirmatory evidence sought in later interviews. Analysis was completed independently by four raters from the research team with differing professional backgrounds (GP, psychiatry, nursing, psychology), with themes agreed and disagreements resolved through discussion.

The semi-structured interviews with GPs, team leaders and Psychiatrists were analysed to identify factors associated with agreement between GP and mental health team, and factors associated with use of the TAG. Perceived benefits and barriers to its use by GPs and teams were also identified. This qualitative analysis was undertaken to ensure that the research would be informative, even if the results of the RCT were negative.

Section 4: Health economic methodology

4.1 Prescribing patterns

For patients on the caseload of all participating GPs (whether in the control or intervention group), psychotropic prescription costs at baseline and 6-month follow-up were collected from Croydon Primary Care Trust. This was intended to provide information on the impact that changes in the referral procedure have on prescribing costs in primary care. Of particular interest were any changes in the prescribing of SSRIs and atypical antipsychotics.

Through negotiation via telephone and email, Croydon PCT provided expenditure on anti-psychotic and anti-depressants for all participating GP practices. Individual practices were anonymised, and monthly data were provided by control and intervention group.

Further data were collected from South London & Maudsley Mental Health Trust (SLAM). By comparing figures provided by the PCT (primary care) and the Trust (secondary care), it was hoped that shifting patterns of prescribing between primary and secondary services could be identified. Data provided by SLAM covered the Croydon Directorate as they were unable to provide data by GP practice or allocation group

This data were intended to help meet Objectives 2 & 3 (see Section 1.4: Aims & Objectives) and was collected in Croydon only.

4.2 Referral audits

Data were collected on primary care referrals to community mental health teams at baseline and 6-month follow-up. Referrals sent by intervention and control group GPs in (i) the 6 months before, and (ii) during the intervention were identified, providing information on the impact that changes in referral procedure have on referral patterns from primary to secondary services.

Information for the 6 months baseline was collected by researchers accessing archived 'referral books' kept by teams, and via electronic patient systems. Data for the follow-up period (during intervention) was provided by the trial database, with the original source being referral rating forms completed at team referral meetings.

This information was intended to meet Objective 3 (see Section 1.4: Aims & Objectives) and was collected in both Croydon and Manchester.

4.3 GP contact rates

Data were collected on primary care contact rates for referred patients in (i) the 6 months prior to referral, and (ii) the period following referral (ending at date data were provided). This was intended to provide information on the

impact that changes in the referral procedure have on patient contact patterns in primary care.

Practices were posted a 'GP contact form' (*Appendix 26*) which they were asked to complete and return within a one month period for a one-off payment of £100 (see Section 5: Protocol Deviations). The form was designed to minimise the burden on practices as far as possible – for example, patient details and relevant dates were pre-completed by researchers. After two weeks, researchers contacted non-responding practices by telephone to encourage completion of the form.

This information was intended to meet Objective 3 (see Section 1.4: Aims & Objectives) and was collected in Croydon only.

The significance of differences in the number of GP contacts between the control and intervention groups, and between those patients referred with and without an accompanying TAG, was tested using logistic regression with the time during which contacts could be made used as the exposure variable and the group variable as the independent variable. For follow-up GP contacts, the baseline rate was entered as an additional independent variable.

4.4 Waiting list times

The time from (i) referral to first appointment with the mental health team was explored in order to investigate whether the system operates more efficiently as a result of the intervention. To build up a clearer picture, waiting times were also explored for: (ii) referral being sent to first being discussed, and (iii) referral being discussed to first appointment.

Data were collected through accessing the trial database, with the original source being rating referral forms collected at team referral meetings. This information was intended to meet Objective 3 (see Section 1.4: Aims and objectives) and was collected in both Croydon and Manchester.

The significance of differences in waiting list times between the control and intervention groups, and between those patients referred with and without an accompanying TAG, was tested using t-tests.

4.5 Health economic analysis

The second objective (to evaluate the cost-effectiveness of using the TAG) was met by linking data on the cost of the TAG with outcomes from the two RCT arms. If the TAG were effective, this would identify the extra cost of achieving a unit improvement in outcome (agreement on the referral) by using the TAG, and allow comparisons to be made with existing patterns of referral by estimating an incremental cost-effectiveness ratio. (It is recognised that economic evaluations usually combine patient level outcomes such as quality of life with costs. Here we are assuming that increased agreement between primary and secondary care staff will ultimately lead to patient benefits.)

The third objective (population-level resource implications) was met by considering:

- referrals to secondary services
- changes in primary care prescribing patterns and contact rates
- time to initial appointment with the mental health team (to investigate whether the system operates more efficiently).

Data were not collected on the number of CMHT contacts that patients would have once referred. A fairly typical level of contact with a CMHT would be 30 minutes every two weeks. With a unit cost of £73 per hour (Curtis & Netten, 05), this results in £475 over a six-month period. Likewise, a typical package of psychological care or counselling might consist of one hour every month. The unit cost of a psychologist is £77 per hour whilst the cost of a counsellor is £39 per hour (Curtis & Netten, 05). Using the average of these, the cost over six months is £348. These costs were applied to the number of referral in the six months before and after the TAG was introduced.

The health economic analysis also investigated pathways through care, by exploring the relationship between different service levels such as teams, GPs, GP practices and patients using multi-level statistical models. The analysis was informed by the qualitative data on team decision-making processes and from GPs about factors influencing referrals. Findings expected to arise from analysis included whether using the TAG leads to different prescribing patterns and referral patterns (to mental health and other agencies), and whether TAG use is associated with being offered an earlier appointment. Investigation of any changes to referral patterns was facilitated by the involvement (as applicants or supporters) of the lead staff for the main alternative referral points – Mind counselling service (Richard Pacitti), Primary Care Counselling and Psychology (Dr Simon Vearnals), Secondary Care Psychology (Dr Caron Gaw), and secondary care psychotherapy services (Dr Anita Timans). This part of the study was exploratory and hypothesisgenerating rather than hypothesis-testing, since little is currently known about how to maximise efficiency in a health care system (rather than an individual team or service within the system). The findings will inform and guide future dissemination of the TAG, as well as contributing evidence more generally to the organisation of mental health care systems.

Section 5 Protocol deviations

Between July and November 04, the trial protocol was written (*Appendix 24*). By the end of the trial, there had been several deviations from that original protocol, as detailed below:

Recruiting a new CMHT in ManchesterTime monitoring of team decisionmaking process

Payment of GPs for interviews

Payment of GP practices for providing service usage data

Trial Extension

Psychiatrist Interviews

5.1 Recruiting a new team

Given the low opt-in rate in Manchester, (48%), it was recognised that higher numbers of referrers in each of the trial arms were needed to ensure statistical power in subsequent calculations. Therefore, the director of Mental Health Services was approached to recommend a further CMHT that could become involved in the study. This resulted in Manchester South Team 2 agreeing to participate in the trial by the end of January 2005. The CMHT and referring GPs were visited and inducted into the study in the same format as for previous teams and referrers.

5.2 Decision-making time monitoring

Unfortunately, it was realised after the trial had begun that the rating referral form did not provide an area to mark the amount of time spent by teams discussing each referral (as originally planned in the protocol – *see Appendix 24*). Although researchers had occasionally collected this data 'informally', it was decided on 21^{st} March 2005 to begin recording this information in the top left-hand corner of each referral rating form as a standard part of the data collection process.

5.3 Payment of GPs for interviews

After discussion with the Local Implementation Group and Steering Group it was decided that GPs should be offered ± 100 to participate in interviews. This was to increase the likelihood of GPs agreeing to be interviewed.

5.4 Payment of GPs for service usage data

Additionally, it was agreed that practices should be paid a fee of ± 100 for the provision of service usage data in order to increase return of this information.

5.5 Extending the trial

After discussion with the Steering Group and Trial Steering Committee it was decided that a study extension of 3 months should be sought. This was due to the low rates of TAG being collected (see Section 2.7.7: Improving Intervention Take-up).

5.6 Psychiatrist interviews

As a result of information coming out of the GP interviews, it was decided that interviewing local Consultant Psychiatrists would provide valuable further insights into the primary/secondary care interface.

Section 6: Data handling and record keeping

The opportunity for 'live' input of data onto laptops either using Microsoft Access or SPSS Data Entry 3.0 was explored and found not to be feasible. Therefore paper-based data were manually entered and stored on a Microsoft Access database, using validation rules to minimise transcription errors. The data were managed using existing departmental expertise, and exported to SPSS and Stata for analysis. Access to the data files was restricted to researchers involved in the study.

The data obtained from the study were stored in locked filing cabinets at the Institute of Psychiatry. Electronic measures were taken for protection of the data such as password protected systems and email addresses. All presentations of the finding of the study have been anonymised. Encryption was used to control access to any electronic files when archived.

Section 7 Ethics

The study was run in accordance with EU and MRC Good Clinical Practice Guidelines (for the clinical trial), the Data Protection Act and the Research Governance Framework. It was considered that individual patients being referred did not need to give consent to involvement, since no further information was needed by the GP to complete a TAG than is contained in a normal, high-quality primary care assessment (and because it is the GP, not the patient, who was the participant in this study). Informed consent from individual patients within clusters is not possible in cluster RCTs (Cluster randomised trials: Methodological and ethical considerations. Medical Research Council, 2002), and so only service usage (rather than clinical information) was collected.

Four of the thirteen applicants (Drs Cahill, Kelsey, Powell and Slade) developed and tested the TAG. This proportion provided continuity for the study whilst including the perspectives of a wider range of stakeholders, but raised the ethical issue of a possible conflict of interest in the evaluation. The potential for bias was unavoidable, but was minimised (i) through involving the Institute of Psychiatry Clinical Trials Unit (no members of which were involved in the development or testing of TAG), including an independent statistician to undertake the random allocation of GPs; (ii) through the constituting of an independent Trial Steering Committee, to oversee the study and ensure scientific impartiality in interpreting the results; and (iii) through the active involvement of the nine other applicants.

Section 8: Results

8.1 Quantitative results

8.1.1 Socio-demographic and clinical characteristics

Table 8 shows the characteristics of patients referred by participating GP practices to CMHTs.

 Table 8: Socio-demographic & clinical characteristics of referred

 patients from study GP's to CMHTs at baseline

	Total N=1061	Croydon Control N= 455	Croydon Intervention n= 379	Manchester Control N=89	Manchester Intervention N=138
Gender: Female n (%) (Missing = 5)	578 (54.7%)	250 (54.9%)	208 (55.5%)	48 (53.9)	72 (53.6)
Age: Mean (sd) (Missing = 3)	36.23 (12.09)	36.46 (12.21)	36.53 (12.15)	35.27 (11.78)	35.29 (11.76)
Primary Clinical Diagnosis: n (%) Psychosis/Schizoph Anxiety Disorder Depressive Disorder Bipolar Disorder Other Unknown/Missing	93 (9%) 173 (16%) 478 (45%) 32 (3%) 146 (14%) 139 (13%)	34 (8%) 88 (19%) 210 (46%) 12 (3%) 87 (19%) 24 (5%)	30 (8%) 73 (19%) 197 (52%) 14 (4%) 48 (13%) 17 (4%)	11 (12%) 4 (5%) 25 (28%) 2 (2%) 5 (6%) 42 (47%)	18 (13%) 8 (6%) 46 (33%) 4 (3%) 6 (4%) 56 (41%)
GP contact rates in 6 mths prior to referral*: mean (sd)	—	8.64 (7.1)	9.44 (7.14)	_	—

*n=384, annualised rates, Croydon only

The information in Table 8 describes what was available to the mental health teams when reaching a decision regarding the appropriateness of a referral. While gender and age were almost always available to teams, ethnicity was only specified in around 10% of referrals.

8.1.2 Comparison of intervention and control arm

Table 9 compares the primary and secondary outcomes between the two trial arms.

	Control	Intervention	OR (95% CI)	χ^2	р
	n=541	n=514			
Appropriate referral	326 (60%)	330 (64%)	1.18 (0.91 to 1.53)	1.74	0.19
Urgency rating easy/very easy	253 (76%)	277 (81%)	1.43 (0.97 to 2.1)	3.54	0.06
Professional identification easy/very easy	292 (87%)	303 (89%)	1.21 (0.74 to 1.98)	0.62	0.43

Table 9 Appropriateness of referral, ease of rating urgency and easeof identifying professional by trial arm

Table 9 shows the primary outcome, appropriateness of referral, and two secondary outcomes of interest, the ease of rating the urgency of cases and the ease of identifying the correct professional, by trial arm (intention-to-treat). There were no significant differences at P=0.05 between the two trial arms in any of these outcomes. There was, however, weak evidence that rating urgency was easier in the intervention arm (p=0.06).

8.1.3 Effect of compliance within intervention arm

The proportion of referrals where the TAG was used when available was 25% (14% in Manchester and 28% in Croydon). Table 10 shows data for the experimental arm where the TAG was offered, comparing referrals where it was or was not taken up. None of the outcomes differed between these groups at p=0.05.

	TAG available but not used n=386	TAG available and used n=128	OR (95% CI)	χ ²	р
Appropriate referral	247 (64%)	83 (65%)	1.04 (0.67 to 1.62)	0.03	0.86
Urgency rating easy/very easy	208 (81%)	69 (84%)	1.28 (0.64 to 2.72)	0.51	0.47
Professional identification easy/very easy	226 (87%)	77 (94%)	2.18 (0.80 to 7.41)	2.55	0.11

Table 10 Appropriateness of referral ease of rating urgency	and ease
of identifying professional by complier status	

Logistic analysis, which also controlled for site (Manchester or Croydon) and practices (the latter included as random effects) showed no significant differences at P=0.05 for any of the comparisons reported in Tables 9 and 10, and the trend toward significance of the ease of rating urgency was no longer observed. However there was weak evidence that identifying a professional was easier for referrals in the experimental arm that were accompanied by a TAG compared to those that were not (adjusted OR 2.69, 95% CI 0.96 to 7.52, p=0.06). The intra-class correlation for appropriateness (among referrals from the same practice) was 0.05.

8.1.4 Predictors of outcome for TAG-accompanied referrals

There were 130 patients with TAGs attached, with mean (sd) age 35.02 (11.21), range 16 – 67; 76 (58%) were women and 11 (9%) had a diagnosis of psychosis. The average total TAG score was 7.92 (4.01).

The 7 TAG domains were included as possible predictors in a random effects logistic regression with appropriateness of referral (coded as Yes/No) as the outcome. The practice was included as the random effect. Age, gender and diagnosis (psychosis or other diagnosis) were also included in preliminary analyses. The TAG variable domain 7 (which is a 4-point scale) was treated as continuous but was also included as a categorical variable in a sensitivity analysis.

Gender and TAG domain 7 were significant predictors, and the fitted parameters of the model with only these variables (Domain 7 included as a continuous variable) are shown below. The odds of a referral being considered appropriate for men is 2.286 times that of women, and each additional point on the TAG domain 7 scale leads to an average increase in odds of the referral being considered as appropriate of 1.732.

Appropriateness	OR	Р	95% CI
Domain 7 (1 point)	1.732	0.012	1.129 to 2.657
Men vs women	2.286	0.047	1.013 to 5.160

Table 11 Predictors of Outcome for TAG accompanied referrals

The estimate of the intra-class correlation within practices was small (0.069, 95% 0.008 to 0.42), similar to that for individual GPs rather than practices.

8.2 Qualitative results

8.2.1 Audio recording referral meetings

Community mental health team referral meetings were recorded pre and post intervention. 10 pre-study meetings were recorded (Croydon = 7, Manchester = 3) and 7 post-study (Croydon = 7).

Team which had refused to recorded pre-intervention were not approached regarding post intervention recording. 2 teams in Manchester which had participated in pre-intervention recordings refused to post-intervention recordings, with reasons linked to recent changes in lead Psychiatrists. An attempt was made to record the third team in Manchester on 2 separate occasions. However, untoward incidents occurred that prevented this from happening. A decision was then taken, in agreement with the team leader, to abandon this part of the study.

A total of 4 teams opted out (pre=1, post=4) for the following reasons:

- Psychiatrists didn't agree to meeting being taped concerned over confidentiality issues (Manchester)
- Lack of consensus from all team members (Manchester)
- Concerned that study was going to base findings on their 2 meetings "suspicious" and "defensive" Psychiatrist (Croydon)

4 sets of full meeting data were achieved. 3 of the post-intervention recordings were patchy and indecipherable due to high levels of background noise and interruptions throughout the meetings.

8.2.2 Interviews

Table 12 Number of interviews conducted

Professional interviewed	Total number of interviews
Croydon GP - intervention	9
Croydon GP – control	10
Manchester GP – intervention	7
Manchester GP - control	9
Croydon Team Leader	7
Manchester Team Leader	5
Manchester Psychiatrist	5
TOTAL	52

GPs

35 GPs were interviewed (Croydon = 19, Manchester = 16). Of these, 16 were in the intervention group (Croydon = 9, Manchester = 7) and 19 in the control group (Croydon = 10, Manchester 9).

Team leaders

All team leaders were invited to be involved in the interview (Croydon = 8, Manchester = 6). 7 agreed to take part in and were interviewed in Croydon, and 5 in Manchester.

Psychiatrists

14 Psychiatrists were approached to be involved – of which 5 agreed (all Manchester). Reasons give by psychiatrists for not participating included:

- Too busy
- Involved in too much research already
- Not interested

8.2.3 Emerging themes

The qualitative component of the TAG study was vital in explaining the low use of the TAG by GPs in their referral of patients from primary care to CMHTs. This work helped to describe and explain the barriers to the implementation of the TAG as well as developing our ideas about the relationship between primary care and CMHTs and the primary/secondary interface in general.

The themes described in the following section were particularly important.

8.2.4 Barriers to the use of TAG

- TAG simply forgotten by referrers
- Fear of TAG being simplistic
- Concern by GPs that TAG may be a barrier and further restrict referral

Two themes around the use of TAG illustrate and explain the low implementation of TAG: Professional factors and organisational factors.

Professional factors	Data
GP	
Simply forgetting	'I don't know where these TAG forms are in my practice' GP601/192 'I have to admit I've not remembered it every timebut also I can go for months and months without making a referral' GP649/176
Perception of TAG as simplistic/reductive	"it does ask the question about why you need to have a sort of score sheet in the first place. If I can't deal with it, I can't deal with it'GP660/175
Fear of how TAG was used by the CMHT	'But the way to do it is not to make the hoops ever more difficult to jump through because GPs are world class, if there was a hoop jumping Olympics we'd flippin' win hands down, yeah? Making it more difficult to get a referral through, it will not stop inappropriate referrals' GP616/191
Suggestion that TAG could be manipulated	'You get good at ticking boxes, yeah, I'm not going to set myself up to fail for my patients, I'll advocate for my patients so I'll tick the boxes." Oh, oh, they said they were going to kill themselves to me' GP 616/191
СМНТ	
TAG not used with referral meetings	'I don't get a sense that it, it's affected our decision in any way, shape or form' CMHT10/7
Perception that TAG does not make a difference	'It doesn't actually change the outcome from the GP's point of view' CMHT23/1.12
Perception that GPs don't use/can't use	'GPs using rating scales is perhaps unfamiliar territory, I don't knowthey might not have felt confident in doing that more formal assessment and having to put something to paper which they could later be taken up on' Psych 1
Perception that GPs give different information on TAG than on referral letter	`and what sometimes is quite interesting is that the letters that are sent doesn't quite correlate to what the TAG says' CMHT17.7

Chart 3 Professional and organisational factors in TAG implementation

Organisational factors	
Mental health problems complex	'and I think that people are not as clear cut as numbers. So there may be people who could really benefit from seeing, or having, a CPN, but maybe are not scoring that highly. And if it's a case of using the resources effectivelyI know we have to do that' GP357
Interface issues	'yet another form to fill when we really need to overhaul the whole system GP.660/175
Perception of role of CMHT	'but there are situations where we see a patient on a bad day, then they're assessed by the team on a slightly better day, but it's a fluctuating scenario. And its almost as if you get a snapshot. Oh and you know I suppose the cynical view is "oh that's a relief. This patient isn't really appropriate for us, so we don't need to be involved". Whereas in fact the next day the person could be really chaotic againAnd I think its partly a feature of the service as a whole, is that those people are not well served' GP630/168 'I don't know how much they take the scoring into account if its still not a severe and enduring mental health problem, I don't know how they would relate that together'GP 643/165

Whilst a number of GPs admitted to simply forgetting to use the TAG when making a referral, explaining that they made so few referrals that the use of TAG had not become routine, other reasons for TAG not being used emerged. GPs feared that TAG was simplistic and did not reflect the complexity of dealing with patients with mental health problems. In addition, some GPs expressed fears that the scoring of TAG could be manipulated to coerce the CMHT to accept referrals whilst other GPs feared that TAG would be used by CMHTs to further restrict referrals. CMHT respondents disclosed the view that GPs were neither willing to complete schedules nor reliable in their completion of TAGs, but admitted that TAGs accompanying referrals had not been considered in their referral meetings, so had not, in fact, not affected their decision-making. Furthermore, there was very little mention of TAG in the referral meeting discussions which indicates its usefulness was not considered when determining referral outcome, although the majority of time taken in discussing referrals was around establishing and agreeing level of risk and urgency of new referrals.

8.2.5 Factors which encourage the use of TAG

- TAG was seen to complement existing referral letters
- TAG was seen to focus decision-making by CMHTs

Differences across sites regarding the perceived benefits of TAG were evident for GPs and CMHTs. GPs in Croydon, who sent a referral letter rather than a standardised form which was the norm in Manchester, reported that TAG complements the GP assessment. CMHTs added that it clarified the information required to make informed decisions. This may also provide some explanation as to the higher success of TAG implementation in Croydon. For instance:

'I don't think it's a be-all and end-all. I still think you need your own sort of background information on the patient and what your feelings are about the patient. But I think its quite useful to assess how urgent the need is' (GP273)

And:

`...it's a way for the CMHT to know what...how I've predicted the risk of the patient' (GP261)

And:

`...it helps us get a greater feel for what we would appropriately do for that individual...'(CMHT16/6)

And:

'...gives them [GPs] a prompt of having specific statements that help...'(CMHT 10/5)

Similarly, these same GPs and CMHTs viewed TAG as assisting in focussing referrals although in reality referral meeting discussions provided little evidence of talks around TAG scores.

"...I think...the study has helped us, it helps us focus a bit more...' (CMHT10/1)

And:

'I think they would have accepted [the referral] anyway. I don't think is made that, but, its' given them more information, and I think its focussed them.' (GP273)

8.2.6 Referrals and access to 'expert knowledge'

When GPs reached their own threshold, they needed to ask for help from a fellow professional, particularly a Specialist who was perceived to have expert knowledge

- Existing systems were not seen as rational and therefore not amenable to transparent, logical debates about protocols and guidelines
- Further guidelines about referral were not the answer

One of the main factors influencing decisions to refer to the teams involved the majority of GPs describing reaching a threshold of their capabilities in managing mental health. Obviously, there were individual variations in these thresholds and there was a perception that there was a lack of flexibility within the CMHT referral criteria to allow for this. In particular, GPs reached a threshold which they felt required Specialist advice and support from Consultants who were perceived to have the expert knowledge. Direct access to a Consultant proved difficult in many instances, which not only added to the frustration GPs expressed about existing systems but more importantly caused delays in patient access to best care.

'I've tried the flipping lot, where do I go from here? And they're still sitting there not suicidal, not deeply mentally ill but certainly deeply miserable and deeply unhappy...but I actually want some consultant advice here...'(GP616/191p7)

And:

'...I wanted a consultant's opinion rather than it being an urgent situation where somebody was suicidal, it was just a consultant's opinion where, where a patient was really extremely challenging to treat...'(GP601/190)

And:

'...once I've decided I can't hold that risk myself, I'm afraid I do want the, the more expert team to see them...'(GP649/176p4)

At the same time, CMHTs and Psychiatrists viewed Consultants as the experts:

`...it is the Consultant who provides I suppose expertise and advice specifically around medication and diagnosis...'(CMHT13/1)

And:

'...Its not really written down anywhere clearly who those people should be but I think broadly speaking we would probably think it would be in terms of where the diagnosis is unclear, if there's a worry about physical health or organic problems, where there's relatively complex medication issues, about initiating new medication or reviewing medication that's not working or I think we do see some people that the team might not normally pick up, particularly treatment resistant depression....' (Psych24/1)

This uncertainty about how to obtain access to expert knowledge was further compounded by beliefs that a patient's mental health problems had to be so severe that they were verging on a hospital admission in order for the team to see them, although there was evidence of variability across teams on the types of problems presented that they were prepared to assess. Existing systems were therefore not seen as rational or amenable to transparent, logical debates about protocols and guidelines. To demonstrate, one GP stated that:

"...I haven't got a clue what their criteria for acceptance are...'(GP 309)

And:

'...You've got to be very fantastically suicidally depressed to reach their criteria actually' (GP657)

Whereas another GP referring into a different CMHT viewed the service as gate-keepers to other mental health services operating at a primary care level:
'...I have this conception that there'll be quicker access to alternative services, such as counselling or psychotherapy, anger management, that kind of thing...' (GP406)

At the same time, although all CMHT leaders stated their purpose as 'to provide care for the severe and enduring mentally ill', consistency about what these terms meant to different teams was not evident, and was further compounded by a tendency to accept particular types of problems dependent on the skill mix and personal interest of professionals within the teams. For example:

'I think the criteria's' always change...depending on the knowledge, depending on the skills, depending on the input of your consultant...I think an awful lot of it sometimes depends on the personalities and the sort of person in the team...' (CMHT 17/7)

And:

"...I think some people feel secondary care is for people with severe and enduring mental illness, thus meaning mainly psychosis...I think that's the way they feel [the team]' (Psych 25/1)

And:

`...its much easier probably for them to see me because of my interest [affective disorders]' (Psych 25/1)

And:

'[factors where you would say actually I think we should see this patient?] "It is probably related to my special interest, mothers and babies. So my threshold for seeing women with young children is lower than for general adult psychiatric patient..." (CMHT 23/2)

The fluidity of CMHT boundaries was viewed by the majority of GPs as rigid and inflexible. Whilst there was empathy with the CMHT on the need to restrict referrals, there was a suggestion that some GPs will manipulate the system in order to get their patients seen due to the lack of alternative resources available for their patients. For example:

`...if you wanted the patient seen you could just tick the dangerous box' (GP638)

And:

`if I don't tick certain boxes, `boing', its someone else's problem immediately' (*GP616*)

And:

'...I think it should be left quite open and if a GP feels that they need CMHT, then that's what should happen rather than having strict criteria then you will have patients on the boundary and where do they go?...'(GP273)

And:

'...nobody really cares that much about that ten percent of people...you know, feel down and maybe have...could be helped by psychological therapy. I mean they're not going to go and beat up a stranger or smashing windows...the political stakes are not high...'(GP652)

8.2.7 Decision making about referrals

- Consultants take lead in directing outcome of referrals
- Discussions about referrals during meetings are centred around establishing level of risk and urgency of referral

One of the purposes of the current study was to attempt to identify changes in team decision making processes involving referrals. An attempt was made to do this through recording referral meetings pre and post trial and subjecting the data to thematic analysis. Unfortunately, difficulties in collecting this data prevented detailed inspection of differences (only 4 complete sets of data were collected). At the same time, it appeared that the lack of use of TAG throughout the trial would not have had a serious impact on the teams' discussions.

Analysis of professional speech did illustrate that Consultants made ultimate decisions regarding the outcome of referrals, and tended to take a directive role within the meetings. At the same time, the teams themselves perceived Consultants as the experts and leaders within their field. This was further demonstrated throughout the interviews with CMHTS:

'...they [Consultants] have the sort of final say, I would say, within our team in the meetings about whether its appropriate or not appropriate...' (CMHT23/1.2)

'...And usually it's me then saying 'I think we should see this patient'. I think CPNs, psychologists have more the tendency to say 'Well we should really not see this patient'...." (Psych 23/1)

'My main role myself is, I think is from the clinical point of view of being a leader for the whole team...' (Psych 25/1)

The amount of information given at the referral point directly related to the amount of time spent discussing the referral. If it was clear what a referrer is asking for, the team tended to agree there and then how they would move forward with the referral. Of those referrals discussed where level of risk and/or urgency was less clear, the majority of the allocated meeting time was spent discussing and agreeing what the likely level of risk was. At this point, further information may be sought and/or an assessment be agreed, or the referral may be redirected to a primary care service. It is of interest that the TAG was designed to facilitate communication about risk between different professionals, y*et al*though TAGs were received they were rarely used to form the basis of these decisions.

8.2.8 Communication across the interface

• Preference for personal contact between professionals

Considerable benefits of personal contact between services, and a preference for face to face contact were recognised by GPs and CMHTs. Although, again there was variability in responses to this, the underlying norm suggested that the relationship between teams impacted on the quality of communication, and therefore quality of patient care. This was not only recognised as having an educational role, for example:

'...having...particular people who are linked to practices to develop personal knowledge of us and our strengths and weaknesses...'(GP736)

But also provided a forum in which to effectively reduce the likelihood of referring inappropriately:

'if you are getting what you feel is inappropriate referrals...from a professional then perhaps going to see the professional might be a good use of your time and saying, 'how can we help this? Would you like a monthly meeting so we can discuss?' (GP616)

And:

'...so this thinking...we'll set up a middle tier to weed out the crap, why don't they put us into a room and say 'look, you are referring a load of crap, you need to start doing a bit more stuff yourselves...' (GP647/166p11)

Similarly:

'...face to face meetings with the GPs...is really helpful when they know a face and a name, but it makes...it opens the pathways really for communication...'(CMHT 23.1)

There were identifiable inconsistencies across teams regarding the level of contact they had with their referrers and the amount of importance that was placed on this. While there were high levels of agreement that this relationship facilitated services, reasons for this not happening ranged from a lack of willingness on the part of the GP to engage with the services to frequent re-configuration of services preventing continuity in communication.

8.2.9 Lessons for other services

- Other areas of the health service can learn from the experience in mental health, with the perception that there was an increasing separation between the GP and the specialist
- There were different expectations on how to access psychiatric specialist knowledge
- GP expectation was that the referral to a CMHT was a means of accessing a psychiatrist

The White Paper on health and social care in the community – *Our Health, Our Care, Our Say: a new direction for community services* – demonstrates that the choice and plurality of provision agenda will improve patient

responsiveness but as a consequence the direct relationship between GP and Consultant will be lost. Access to medical services therefore is in danger of experiencing the very same difficulties that are currently experienced in accessing mental health services.

The increasing separation between GP and specialist appears to have direct effects on the ability of patients to access appropriate services. For example:

'...it seems to me that everybody...their first thought when they get a referral is how can I push this away? How can I get it...become somebody else's problem? Not how can I help this patient?....their first thought is how will I ditch this?...'(GP616/171)

And:

'... Instead of really looking at "What does this patient actually need at this particular time?" ... Patients aren't interested if it's primary, secondary, tertiary or whatever. All they want is some sense of being cared for. And if we had a much more fluid system that just to-ed and fro-ed without these rather artificial boundaries...'(GP630/168p8)

And:

'[bureaucratic barriers]...I think that's the difficulty. But if there was only probably one system, lets say on call team, anyone referred to them it would be easier then probably they'll do that, but it's a bit of a mess, they're not quite sure whether it has to be the emergency team or it will have to the team who is looking after the patient' (Psych 25/1)

Additionally, access to other secondary services is presently viewed as seamless and straight forward when compared to access to mental health services. Policy changes will need to take account of the impact on GPs of restriction of access to 'specialist knowledge'.

"...it should be like any other secondary care service, we should be able to refer in people that we cant deal with, without having these hoops to jump through and fourteen people to telephone..."(GP660/175)

And clarify who is responsible for what:

'[predicted problems]...were that it would cause problems between GPs and consultants because of responsibility and who was responsible for a patient in the community. As far as I'm concerned the GP is responsible for the patient in the community. I am responsible for providing support to the CMHT and to provide support to the GP through the domiciliary system...'(Psych 23/1)

Negotiating these complex systems ultimately has consequences for the patient. For instance:

'...I think its all to do with managers trying to reduce the number of referrals and just saying that well, if we have fifteen hoops in a row, maybe some people wont get over the fifteenth and this referral wont occur. But that can't possibly be in the patient's interest...'(GP262) And:

'And there is a patient there who just needs to see somebody. And this bouncing of referrals I don't think is very good for the patient. And that has happened a few times. And all of that just adds on to the time that somebody's waiting. And I find that quite difficult...'(GP357)

The triadic nature of this relationship is not consistent and therefore lends to providing an irrational system. For example, some GPs refer to the team to obtain a psychiatrists opinion and or advice, whilst others will refer directly to the Psychiatrist, who may then either discuss the referral with the team to determine outcome, or arrange an out-patient appointment for the patient and then discuss the referral with the team.

'...You still have a number of GPs probably who will want write...straight to me and I would look at the letter...but I still take them to the [team]' (Psych 25/1)

'...then I'll still write a letter separately with a detailed care plan to the GP, because it's faster. And because I can put what I think I would like to say, as opposed to the care co-ordinator putting a green form, and I don't think, narrative goes missing and sort of my own assessment of the whole picture goes missing.' (Psych 23/1)

8.3 Health economic and service use results

8.3.1 Cost-effectiveness of the TAG

To determine cost-effectiveness, the cost of the intervention needs to be combined with its effectiveness. It was estimated that GPs would spend approximately 1.5 minutes filling in the TAG and this entails a cost of around $\pounds 2.70$ (Curtis & Netten, 2005). The material costs of the TAG are minor, consisting of printing and distribution, and postage costs would already be covered as the GP would routinely send a referral to the CMHT. The extra cost of a TAG referral in routine practice would be unlikely to exceed $\pounds 5$. Therefore, the TAG adds to cost, albeit by a small amount, but does not appear to produce better outcomes in terms of more appropriate referrals. As such it could not be said to be cost-effective.

8.3.2 Prescription patterns

There were reductions in the expenditure on antipsychotic medication and SSRIs in Croydon between the baseline and follow-up at six months (Table 13). The proportional reductions were relatively similar between the control and intervention groups. Expenditure by the local mental health trust (SLAM) also went down over time. (It was not possible to distinguish between SLAM expenditure on control and intervention groups.)

	PCT - Control Group (6 month expenditure)	PCT - Intervention Group (6 month expenditure)	SLAM – Croydon area (mean expenditure per month)
Baseline Antipsychotic expenditure $(£)$	247,708	155,739	71,145
Follow-up Antipsychotic expenditure (£)	234.089	142,976	65,692
Baseline SSRI expenditure $(£)$	195,637	155,461	4,794 ¹
Follow-up SSRI expenditure (£)	176,945	139,856	3,792 ²

 Table 13 Prescription expenditure at baseline and follow-up

¹July/Aug'04 data missing ² June'05 data missing

8.3.3 GP contact rates

GP Contact Rate Forms were sent to 55 practices, of which 31 responded (56.4%), providing data on 377 referred patients. Responding practices were evenly split between intervention and control groups (control=14 (47%), intervention=16 (53%)). 31% of referred patients in the responding intervention group practices had a TAG attached to their referral to secondary services.

For the purposes of comparison it is most appropriate to compare the annual rate of GP contacts as this adjusts for differences in the time over which contacts were made. It can be seen from Table 14 that the annual rate at baseline was slightly higher in the intervention group than the control group, but this difference was not statistically significant. However, the difference was greater at follow-up, and this difference was significant (with the baseline difference controlled for). Interestingly though, the difference in the contact rate between patients who were referred with an accompanying TAG and those who did not have an accompanying TAG was not significant (Table 15).

Although the difference between control and intervention group contact rates at follow-up was significant the cost difference is relatively modest at \pounds 42 (Curtis & Netten, 2005).

	Control	Interv'n	Significance
Baseline contacts	4.3 (3.6)	4.7 (3.6)	IRR: 1.08, 95% CI 0.89-1.31, p=0.422
Baseline annual rate	8.9 (7.2)	9.6 (7.2)	
Follow-up contacts	3.4 (3.1)	4.8 (5.3)	IRR: 1.36, 95% CI 1.07-1.73, p=0.012
Follow-up annual rate	9.0 (7.9)	11.0 (10.2)	

Table 14 Contact rates for control and intervention groups before &after referral

IRR = incidence rate ratio

Table 15	Contact rates for referrals with and without TAG
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	Control	Interv'n	Significance
Baseline contacts	4.5 (3.5) ¹	4.9 (4.0) ¹	IRR: 1.11, 95% CI 0.84-1.47, p=0.472
Baseline annual rate	9.1 (7.0)	10.1 (8.0)	
Follow-up contacts	4.1 (4.6)	4.3 (4.0)	IRR: 1.00, 95% CI 0.79-1.27, p=0.985
Follow-up annual rate	9.8 (9.0)	11.6 (10.3)	

IRR = incidence rate ratio

8.3.4 Referral audits

The overall number of referrals to CMHTs fell by 8% in Croydon between baseline and follow-up and remained almost unchanged in Manchester (Table 13). There was however large differences between the intervention and control practices. In Croydon, referrals from control practices fell by 12% but only 2% for intervention practices. In Manchester, there was a 17% fall in control practice referrals but a 16% *increase* in referrals from intervention practices.

Using a cost of £475 per referral to a CMHT and £348 per referral to psychology or counselling services, there would have been a cost decrease for the Croydon control group of £21,375 for CMHT referrals and a decrease of £2375 for the intervention group. In Manchester, CMHT referral costs would decrease by £5225 for the control group but increase by £5700 for the intervention group. With regard to psychological and counselling services in Croydon, there would be a decrease of £7308 in the control group and £17,748 in the intervention group.

	Croydon			Manchester
	СМНТ	PCCS	Other	СМНТ
All baseline	641	602	19	142
All follow-up	591	530	13	143
Control baseline	367	304	10	65
Control follow-up	322	283	5	54
Intervention baseline	274	298	9	77
Intervention follow- up	269	247	8	89

Table 16 Referral audits at baseline and follow-up

8.3.5 Waiting list times

The mean (sd) number of days between (i) the referral being made and received, (ii) the referral being received and the date of the first appointment (if one was made), and (iii) the referral being made and the date of the first appointment is shown in Tables 17 for the control and intervention groups and in Table 18 for patients referred with a TAG and those without a TAG. Table 17 suggests that the total waiting time between a referral being made and the date of any first appointment was slightly higher for the intervention group in both sites. Table 18 though indicates that total waiting times were lower for patients who were referred with an accompanying TAG. However, because of the large standard deviations these differences were not statistically significant. In fact, the only significant differences were for the referral being made and received for (i) control and intervention patients in both sites (p=0.020) and (ii) referrals accompanied with and without a TAG in Croydon (p=0.022).

	Both sites		Manchester		Croydon	
	Control	Interv'n	Control	Interv'n	Control	Interv'n
Referral sent to ref. received	5.6 (8.6)	4.6 (8.5)	0.4 (3.0)	0.1 (0.7)	6.2 (8.9)	5.6 (9.1)
Ref. received to appointment	32.1 (25.6)	33.4 (29.3)	22.8 (21.3)	26.2 (23.9)	34.1 (26.1)	35.9 (30.6)
Ref. sent to appointment	36.6 (27.7)	38.2 (30.7)	23.5 (21.4)	26.3 (23.9)	39.4 (28.2)	42.3 (31.7)

Table 17 Waiting list times for referred control and interventiongroup patients

Table 18	Waiting list times for referred patients with and without an
accompa	nying TAG

	Both sites		Manchester		Croydon	
	No TAG	TAG	No TAG	TAG	No TAG	TAG
Referral sent to ref. received	4.8 (8.7)	3.8 (3.9)	0.1 (1.4)	0.4 (1.8)	6.0 (9.4)	4.2 (3.9)
Ref. received to appointment.	34.8 (28.6)	32.1 (27.7)	27.8 (24.8)	18.0 (12.1)	37.1 (29.5)	33.8 (28.6)
Ref. sent to appointment.	38.9 (30.5)	35.4 (28.1)	27.9 (24.8)	18.0 (12.1)	42.5 (31.3)	37.5 (28.8)

Section 9 Discussion and conclusions

This multi-site multi-method cluster randomised controlled trial investigated the introduction of a standardised assessment of mental health problem severity into the referral process from primary to secondary care. The use of TAG did not impact on CMHT views about the 'appropriateness' of the referral, and so the intervention, whilst of a low cost, was not shown to be effective. The nested qualitative investigation in our study identified two barriers to implementation: professional (e.g. degree of trust, interpersonal relationships) and organisational (e.g. perception that standardised referral approaches are a camouflaged approach to rationing, differing perceptions about the importance of severity).

9.1 Strengths and weaknesses

The main strengths of the study are methodologically rigour, and the adequacy of the sampling frame both in size and socio-demographic representativeness. The study involved GP practices providing care for 407,808 patients (297,756 in Croydon, 110,052 in Manchester), i.e. 0.8% of the population of England.

The level and method of implementation of the intervention was different in the two sites. At the organisational level, the two sites used differing approaches to implementation. In Croydon, the evaluation was called a service development, and directly supported by the mental health trust. In Manchester the evaluation was not part of a service change, so was seen as research – thus practices were more able to initially refuse to participate in the study and to later opt out of using TAG. This may account for a lower GP practice participation rate and lower use of TAG in Manchester.

In relation to sites, although different, Manchester and London are both major urban conurbations, with the commonalities that this implies. Had the results been more positive, their generalisation to other localities (such as rural settings) would have remained unclear. This links to other issues about knowing to what and for how long the results of a particular study generalise, which have been discussed elsewhere (*e.g.* Slade & Priebe, 2006).

The disparity between the 74% implementation rate of TAG in previous nonrandomised studies (Slade *et al*, 2002) and the 25% found in this trial is noteworthy. The mental health Patient Held Record (PHR) literature is relevant. Much higher implementation rates (*i.e.* patients choosing to keep a PHR) were found in initial non-randomised pilot studies than in subsequent randomised controlled trials (Laugharne & Henderson, 2004). The reasons for this disparity in implementation rates is unclear, although patient factors (confidentiality, stigma, perceived usefulness) and professional factors (time, duplication, lack of training, lack of ownership) (Warner *et al*, 2000) and GP practice size (Lester *et al*, 2003) have been proposed. One weakness is the 'black-box' assumption embedded in trial methodology, that variation in how an intervention is implemented is undesirable. Implementation of the intervention needed to be done in different ways in the two sites (TAG pack versus TAG score sheet), and no account was taken of GP preference. The qualitative investigation identified both professional and organisational blocks to use, and highlighted the complexity of the primarysecondary care interface. This study is consistent with other organisational psychology literature (Lomas, 1993) in showing that local factors (e.g. interpersonal relationships, learning history about how standardised referral approaches have been used as a means of rationing) need to be considered. In other words, localised implementation is necessary in different settings. We discuss below the methodological implications of these contextual factors for future research. Here we simply note that is not possible, for instance, to identify whether the statistical difference found in contact rates for the two groups post-referral (shown in Table 14) is simply a Type 1 error or indicative of actual behaviour change.

There is also a trade-off between design complexity and feasibility. Our findings suggest that GPs differ in how important they consider severity to be when deciding whether to refer. They also differ in their views about referral forms in general. It would have been possible to adapt a patient preference design (King *et al*, 2005) to take account of GP agreement with the importance of severity in deciding whether to refer. This might involve assessing GP attitude, and then allocating GPs who do not think severity is important (and who therefore will either not complete TAG or will exaggerate to get their patient seen) to the control group, with undecided GPs randomly allocated. A similar approach could be used on the basis of general GP views about forms, or attitude towards standardised assessments. However, all these design alterations would make it more difficult to retain the practice-level clustering, increase the requisite sample size, and make interpretation of the results problematic.

A potential weakness of the study is that some GPs participants were paid for being interviewed, and GP practices were paid to provide primary care contact data. Any financial contribution can of course reduce the generalisability of the findings. The study was therefore carefully designed to ensure that no payment was associated with participant in the main randomised controlled trial.

Regarding service user involvement, for this study the involvement was relatively limited and mainly focussed on the design and grant submission phases, although it should be noted that there was service user representation on the Croydon Local Implementation Group (LIG) (Section 2.7.3). This limited involvement is proportionate to the relevance of the study to service user interests – the process of referral is not of huge importance to people wanting access to mental health services (although the speed of access and appropriateness obviously are). Service user involvement is most helpful in relation to design decisions (outcomes, data collection methods), accessing participants, etc. Service users we discussed the study with were not, in general, interested in involvement, and there was no obvious substantial post-funding contribution. The results have implications for management of the primary-secondary interface, and for methodological approaches to evaluating complex interventions. These implications are consistent with previous research into primary mental health services (Croudace *et al*, 2003) and evaluation research (Oakley *et al*, 2006).

9.2 Managing the primary-secondary care interface

Some of the lessons for future services are highlighted earlier, in the discussion of the qualitative data (Section 8.2.9). In addition, our study can inform efforts to improve primary - secondary care communication in two ways. First, caution should be exercised over the introduction of a new process such as a referral form. Prior to our study, the TAG had been carefully developed over a ten-year period within an externally funded research programme to develop a standardised mental health referral form. Four previous research grants had funded a systematic review, Delphi Consultations, expert consensus workshops, and a ten-site prospective cohort study evaluating the TAG. The rationale for its use was explained in our study through visits by researchers to 60 of the 72 participating practices. Since most new processes will be less tested before introduction and less explained when implemented, the likelihood of benefits arising may be even lower. More generally than simply the paper-work, increased attention needs to be given to change management within primary mental health care, given the central importance of primary care to service modernisation.

Second, the narratives of both GP referrers and referred-to team leaders and psychiatrists concentrated on the relationships between the health professionals, and how this influenced the referral process and outcome for both patient and professional. This indicates that formal referral processes (i.e. the paperwork) are embedded in a rich interpersonal context. It is noteworthy that there was no significance attached by the respondents in this study to the existence of recommendations for routine use of TAG in policy (Department of Health, 2002). This is consistent with other primary care level research, which found a minimal impact of formal guidelines on mental health practice (Croudace *et al*, 2003). Future research will need to use methods that investigate formal process changes as only one part of a multi-level intervention to improve communication and mutual understanding across the interface.

Does TAG have a role? It is plausible though un-tested that a more robust approach to implementation (*e.g.* refusing non-TAG accompanied referrals) would have markedly improved implementation rates and achieved some of the hoped-for shifts in how referrers and CMHTs think about referral processes. At a local level, TAG is known to be in use in many settings throughout England. Most of this use is locally-owned, sustained and nonevaluated. At a local level, it may be necessary to develop far less resourceintensive approaches to evaluation, such as periodic review of whether CMHTs continue to request TAG information.

9.3 Treatment fidelity in complex interventions

Our study raises a general methodological issue. The uptake of the intervention was low, so uncertainty remains about its effectiveness (Rychetnik, 2002). In other words, even a rigorous trial based on current best practice in complex intervention evaluation (Campbell *et al*, 2000) may not yield clear-cut results. Inclusion of a 'process evaluation' – collection of information to understand how the intervention is implemented and received (Oakley *et al*, 2006) – indicated the relevance of multiple contextual factors.

Context is a problem for complex interventions. Interventions which are tailored to the setting are more effective (Lomas, 1993), but varying the intervention conflicts with the goal of minimising variation in intervention implementation (i.e. treatment fidelity). Specifically, in a standard RCT design it is difficult to dynamically vary the intervention in the light of emerging implementation findings during the study. In theory, this could for example be addressed by action research strategies combined with quasi-experimental approaches, which might achieve a better compromise between securing adequate implementation and assessing the value of the intervention. In practice, this tension has been addressed using two approaches.

The first approach to considering context involves amending the intervention to the minimal degree necessary to allow implementation in each site. Our study used this approach, by having TAG either as a stand-alone single-page adjunct to an existing referral form, or a multi-page elaborated pack given to referrers. However, we showed that not just the setting but multiple contextual aspects from interpersonal relationships between individual participants to organisational beliefs were relevant to implementation. Our study design took no account of the impact of these moderators (Baron & Kenny, 1986), for example using different approaches with GPs who were more or less favourable towards the importance of severity, who had or did not have an existing positive relationship with their CMHT, etc.

The second approach to context involves treating the intervention as a collection of options all based on a single coherent theoretical base. This means that the content of one implementation of the intervention may overlap totally, partially or minimally with another instance. This approach has been used with patient-level interventions, such as the development of manuals for psychological therapies (Baker *et al*, 2006). It has not been used with service-level interventions, perhaps because of the difficulty in describing their theoretical basis. In our study, this might involve the use of TAG as one of several elements of an overarching package of interventions to improve primary – secondary care communication.

The complexity of complex interventions lie on a continuum. Those at the more complicated end are concerned with services or systems rather than patients, address problems characterised by polarised disagreement (e.g. how important is severity in deciding to refer?), and require attitudinal change for implementation. There is a need for methodological development to combine the strengths of clinical trials with a recognition of this contextual complexity. The need to modify standard trial designs to account for patient preference is now accepted (King *et al*, 2005). Where an adequate theoretical

basis can be established, further modifications to trial design may be needed to investigate systematically varied interventions. For complex interventions in complicated contexts, it may however become necessary to employ evaluative methodologies which treat context as an opportunity rather than a threat, such as the realistic evaluation approach to investigating how mechanisms acting in contexts produce outcomes (Pawson & Tilley, 1997).

This argument also emerges from within the Evaluation and Implementation literature, in which there is debate about the extent to which evaluation (as in this study) is compatible with intervention (*e.g.* Pressman & Wildavsky, 1987). Some have argued that policy cannot be a top-down proposition, but rather that 'street-level bureaucrats' (in the context of this study, health professionals) must be regarded as part of the policy-making community (Lipsky, 1980). The policy implication of our study is that the people working at the primary care interface (*i.e.* GPs and other referrers, and secondary care mental health professionals) need to be closer to the decision-making processes about how the primary-secondary interface is to be managed. GPs already show a level of consistency – age and gender of the referred patients are routinely included, whereas ethnicity is not. This demonstrates that a consistent approach by referrers to the referral process is possible. However, top-down approaches to developing and disseminating policy edicts about who is and who is not to be prioritised are unlikely to be implemented in practice.

Section 10 Dissemination and communication

10.1 Local

GP practices have been provided with a two-page summary of the study results and can request further individualised information. Additionally, reports have been produced and presented to mental health services in Croydon and Manchester. In Manchester, the Locality Director of Mental Health Services has been sent copies of the GP summary and Local Reports produced for CMHTs.

GP Summary – Croydon (Appendix 31)	January 2006
GP Summary – Manchester (Appendix 32)	January 2006
Local Service Report presented to Borough Executive - Croydon	December 2005
Local Service Report presented to community mental health team leaders -Croydon	January 2006
Summary results presented to Consultant Psychiatrists meeting - Croydon	February 2006
Local Service Reports presented to CMHTs - Manchester	February 2006
Results presented at Primary Mental Health Development Meeting - Croydon	March 2006

Chart 4 Local dissemination list

Additionally, we sought to respond to specific queries from services. For example, at their request, we provided Croydon team leaders with additional information on the breakdown of reasons given by teams for not accepting a referral, and the breakdown of acceptance and rejection of referrals by clinical diagnosis.

10.2 National

Nationally, a number of academic papers are currently in preparation (Appendix 25). These papers will cover all significant aspects of the study and will be targeted to a wide variety of journals in order to achieve maximum exposure. In addition, the study was presented at the UK Mental Health Research Network Conference 2005, and an abstract has been submitted for an oral presentation at the Society for Academic Primary Care Conference in July 2006.

Section 11 Recommendations for future research

Three recommendations arise from this research programme (listed in order of increasing generalisability):

- Future TAG research should be more focussed on its use for fostering discussion between individual referrers and teams about the role of severity in decision-making about referrals. This is likely to involve individual case studies and development of best practice guidelines, rather than large-scale trials of an invariant intervention.
- Future research into management of the primary secondary care interface in mental health will require more explicit and detailed consideration of process issue, including professional and organisational factors. Changing the process of referral is unlikely in itself to improve access.
- Randomised controlled trials, especially those that are multi-site and investigating complex interventions, should routinely include multi-method exploration of process issues.

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Section 13 Appendices

Appendix 1 GP information sheet



at The Maudsley

Health Services Research Department (Box P029) Institute of Psychiatry De Crespigny Park, Denmark Hill London. SE5 8AF. UK.

Tel: 020 7848 0570 Fax: 020 72 77 1462 Email: TAG Study@iop.kcl.ac.uk



University of London



GENERAL PRACTITIONER INFORMATION SHEET

You are invited to take part in a study, which is aiming to improve access to adult community mental health services. This sheet is intended to outline the study.

What is the purpose of this study?

The purpose is to ensure that people who are referred to adult Community Mental Health Teams (CMHTs) are seen as quickly as possible and assessed as quickly as possible. This project will investigate whether using the Threshold Assessment Grid (TAG) leads to improved access. TAG is a quick and simple assessment of the severity of a personÖsmental health problems, with established psychometric properties. The TAG has been developed to identify those people whose mental health problems are of sufficient severity to warrant referred to secondary mental health services. This study will take place in Croydon and Manchester. The duration will be around six months.

What does this study involve?

General Practitioners will be randomly allocated to either the control group or the intervention group. GPs allocated to the control group will not be asked to change their referral practice, and will continue to make referral to the C MHT in the same way. GPs allocated to the intervention group will be asked to complete a TAG schedule when making referrals to their local adult CMHT to accompany the usual referral. In a previous London-wide study, people completing the TAG more than twice rated the average completion time as 3 minutes. The referral to the CMHT will then be processed in the usual way. The CMHT will be asked to complete a brief assessment about all referrals.

What are the possible benefits of my participation?

The short-term benefit is the opportunity to employ a carefully developed approach encouraging best practice in referrals. The medium-term benefit is contributing to the evidence base about whether using TAG does improve access to mental health services. Participating in this study will give GPs the opportunity of influencing future service developments.

Confidentiality and Consent

Participation in this study is entirely voluntary. If you agree to take part, you may still withdraw from the study at any time, and non-participation will not affect your employment in any way. All presentations of the finding of the study will be anonymised. In the event of you suffering any adverse effects as a consequence of your participation in this study, you will be compensated through King§ College London OsON Fault Compensation SchemeO.

The Study Team

The Principal Investigator for this study is Dr Mike Slade, Consultant Clinical Psychologist in Rehabilitation, Croydon. If you have any questions or would prefer not to participate, please contact: Jo Wardle - Project Co-ordinator (j.wardle@jop.kcl.ac.uk, 020 7848 5069).

GPIS-Cv.2

Appendix 2 CMHT information sheet

Tel: 020 7848 0570 Fax: 020 7277 1462

Institute of Psychiatry

at The Maudsley

Health Services Research Department (Box P029) Institute of Psychiatry De Crespigny Park, Denmark Hill London. SE5 8AF. UK.

Email: TAGStudy@iop.kcl.ac.uk



University of London

Evaluation of the Threshold Assessment Grid (TAG) as a means of improving access from primary care to mental health services

COMMUNITY MENTAL HEALTH TEAM INFORMATION SHEET

This study will look at ways of improving access to adult community mental health services. This information sheet outlines the study.

What is the purpose of this study?

The purpose is to ensure that people who are referred to adult Community Mental Health Teams (CMHTs) are seen as quickly as po ssible and assessed as quickly as possible. This project will investigate whether using the Threshold Assessment Grid (TAG) leads to improved access. TAG is a quick and simple assessment of the severity of a personÕsmental health problems, with established psychometric properties. The TAG has been developed to identify those people whose mental health problems are of sufficient severity to warrant referred to secondary mental health services. This study will take place in Croydon and Manchester. The duration will be around six months.

What does this study involve?

Half of your referring GPs (and all other referrers) will be asked to include a completed TAG and specific information in their referral to your team. This study is testing whether this extra information helps CMHTs to respond to the referral. Your team will be asked to rate each referral on the basis of the information provided (which may or may not include a completed TAG). The rating form will be short, simple to use, and take 1 minute to complete.

What are the possible benefits of my participation?

The short-term benefit is the opportunity to benefit from a carefully developed approach to encouraging best practice in referrals. The medium-term benefit is contributing to the evidence base about whether using TAG does improve access to mental health services. Participating in this study will give CMHTs the opportunity of influencing future service developments.

Confidentiality and Consent

All presentations of the finding of the study will be anonymised. In the event of you suffering any adverse effects as a consequence of your participation in this study, you will be compensated through KingÕsCollege LondonÕsŌNd Fault Compensation SchemeÕ

The Study Team

The Principal Investigator for this study is Dr Mike Slade, Consultant Clinical Psychologist in Rehabilitation, Croydon. If you have any questions please contact:

Jo Wardle - Project Co-ordinator (j.wardle@iop.kcl.ac.uk, 020 7848 5069).

CMHTIS-Cv.2

Appendix 3 CMHT participation agreement

Institute of Psychiatry

Health Services Research Department (Box P029) Institute of Psychiatry De Crespigny Park, Denmark Hill London. SE5 8AF. UK.

at The Maudsley

Tel: 020 7848 0570 Fax: 020 7277 1462 Email: TAGStudy@iop.kcl.ac.uk



University of London

Evaluation of the Threshold Assessment Grid (TAG) as a means of improving access from primary care to mental health services

CMHT PARTICIPATION AGREEMENT

The above study has been verbally described to me, and I have been given the written information sheet. I hereby give consent for my team g participation in the above study.

I understand that I can withdraw consent for involvement at any time.

Signed:

. ÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉ

Name: ÉÉI	ÉÉÉÉÉÉÉÉ	ÉÉÉÉÉ	
Position: ÉÉI	ÉÉÉÉÉÉÉÉ	ÉÉÉÉÉ	
CMHT: ÉÉI	ÉÉÉÉÉ	ÉÉÉÉÉÉÉÉÉ	
Date	ÉÉÉÉ	/ÉÉ /ÉÉÉ	

Witnessed by:

Signed:

ÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉ

Evaluation of the Threshold Assessment Grid as a means of improving access Appendix 4 PCCS information sheet

Institute of Psychiatry

Health Services Research Department (Box P029) Institute of Psychiatry De Crespigny Park, Denmark Hill London. SE5 8AF. UK.

at The Maudsley

Tel: 020 7848 0570 Fax: 020 7277 1462 Email: TAGStudy@jop.kcl.ac.uk



University of London

Evaluation of the Threshold Assessment Grid (TAG) as a means of improving access from primary care to mental health services

Primary Care Counselling Services INFORMATION SHEET

This study will look at ways of improving access to adult community mental health services. This information sheet outlines the study.

What is the purpose of this study?

The purpose is to ensure that people who are referred to adult mental health services are seen as quickly as possible and assessed as quickly as possible. This project will i nvestigate whether using the Threshold Assessment Grid (TAG) leads to improved access. TAG is a quick and simple assessment of the severity of a personÕsmental health problems, with established psychometric properties. The TAG has been developed to identify those people whose mental health problems are of sufficient severity to warrant referral to secondary mental health services. This study will take place in Croydon and Manchester. The duration will be around six months.

What does this study involve?

Half of your referring GPs (and all other referrers) will be asked to include a completed TAG and specific information in their referral to your team. This study is testing whether this extra information helps secondary services to respond to the referral. Your team will be asked to rate each referral on the basis of the information provided (which may or may not include a completed TAG). The rating form will be short, simple to u se, and take 1 minute to complete.

What are the possible benefits of my participation?

The short-term benefit is the opportunity to benefit from a carefully developed approach to encouraging best practice in referrals. The medium-term benefit is contributing to the evidence base about whether using TAG does improve access to mental health services. Participating in this study will give secondary services the opportunity of influencing future service developments.

Confidentiality and Consent

All presentations of the finding of the study will be anonymised. In the event of you suffering any adverse effects as a consequence of your participation in this study, you will be compensated through KingÕsCollege LondonÕsŌNo Fault Compensation SchemeÕ

The Study Team

The Principal Investigator for this study is Dr Mike Slade, Consultant Clinical Psychologist in Rehabilitation, Croydon. If you have any questions please contact:

Jo Wardle - Project Co-ordinator (j.wardle@iop.kcl.ac.uk, 020 7848 5069).

Appendix 5 PCCS participation agreement

Institute of Psychiatry

at The Maudsley

Health Services Research Department (Box P029) Institute of Psychiatry De Crespigny Park, Denmark Hill London. SE5 8AF. UK.

Tel: 020 7848 0570 Fax: 020 7277 1462 Email: TAGStudy@iop.kcl.ac.uk



University of London

Evaluation of the Threshold Assessment Grid (TAG) as a means of improving access from primary care to mental health services

Primary Care Counselling Services

PARTICIPATION AGREEMENT

The above study has been verbally described to me, and I have been given the written information sheet. I hereby give consent for my teamÕsparticipation in the above study. I understand that I can withdraw consent for involvement at any time.

Signed:	ÉÉÉÉÉÉÉÉÉÉÉÉÉ.	
Name:	ÉÉÉÉÉÉÉÉÉÉÉÉÉÉ	
Position:	ÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉ	
Service	ÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉ	
Date	ÉÉÉ/ÉÉ /ÉÉÉ	

Witnessed by:

Signed:	ÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉ
Name:	ÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉ
Date:	ÉÉÉÉ/ÉÉ /ÉÉÉ.

PCAv.2

Evaluation of the Threshold Assessment Grid as a means of improving access

Appendix 6 Study Logo

Study Logo



Evaluation of the Threshold Assessment Grid as a means of improving access from primary care to mental health services

Appendix 7 TAG pack front cover



From 1 January, 2005 referrals to the following services should include a:

Completed Threshold Assessment Grid (TAG) Score Sheet (taken from this pack) AND Referral letter

Please use this form for Primary Care referrals to:

Primary Care Counselling Team

37 Tamworth Road, Croydon, CR0 1XT. Tel: 020 8465 8418 Fax: 020 8465 8428

Psychological Therapies Service 37 Tamworth Road, Croydon, CR0 1XT. Tel: 020 8465 8420 Fax: 020 8465 8428

Community Mental Health Teams

<u>Mid Central</u>

37 Tamworth Road, Croydon, CR0 1XT. Tel: 020 8700 8721 Fax: 020 8700 8716

<u>Central East</u> 37 Tamworth Road, Croydon, CR0 1XT. Tel: 020 8700 8730 Fax: 020 8700 8783

Central West

37 Tamworth Road, Croydon, CR0 1XT. Tel: 020 8700 8737 Fax: 020 8760 9784

North East 49 St James Road, West Croydon, CR0 2UR. Tel: 020 8700 8510 Fax: 020 8700 8524

North West

49 St James Road, West Croydon, CR0 2UR. Tel: 020 8700 8512 Fax: 020 8700 8541

North North 49 St James Road, West Croydon, CR0 2UR. Tel: 020 8700 8520 Fax: 020 8700 8561

South East

Salcot Crescent, New Addington, CR0 0JJ. Tel: 01689 842939 ext. 8493 Fax: 01689 800 874

South West

50 Pampisford Road, Purley CR8 2NE. Tel: 020 8700 8917 Fax: 020 8700 8904

Please use this form for Secondary Care referrals to:

Home Treatment Team

37 Tamworth Road, Croydon, CR0 1XT. Tel: 020 8465 8400 Fax: 020 8700 8787

Psychotherapy Services

37 Tamworth Road, Croydon, CR0 1XT. Tel: 020 8465 8416 Fax: 020 8465 8428

Appendix 8 Control practice allocation/start of trial letter

Institute of Psychiatry

at The Maudsley

Health Services Research Department (Box P029) Institute of Psychiatry De Crespigny Park, Denmark Hill London. SE5 8AF. UK.

Tel: 020 7848 0570 Fax: 020 7277 1462 Email: TAGStudy@iop.kcl.ac.uk



University of London



Evaluation of the Threshold Assessment Grid as a means of improving access from primary care to mental health services

Practice Manager Practice Name Address 1 Address 2 Address 3 Postcode

20th December 2004

Dear Practice Manager

NEvaluation of the Threshold Assessment Grid (TAG) as a means of improving access from primary care to mental health services.Ó

Thank you for agreeing to participate. Your practice has been a llocated to the **DELAYED START** group.

This means that your implementation of the TAG will be delayed for six months while the trial is conducted. You are asked to continue with your normal means of making mental health referrals to:-

- Community Mental Health Team
- Psychological Therapies Services
- Psychotherapy
- MIND Counselling Service
- Primary Care Counselling & Psychology Service
- Home Treatment Service

The protocol and ethical approval documents are available, should you wish to peruse them please contact me for a copy.

Many thanks for your participation.

Yours sincerely

Jo Wardle Project Coordinator GPC.V2

Appendix 9 Intervention practice allocation/start of trial letter

Institute of Psychiatry

at The Maudsley

Health Services Research Department (Box P029) Institute of Psychiatry De Crespigny Park, Denmark Hill London. SE5 8AF. UK.

Tel: 020 7848 0570 Fax: 020 7277 1462 Email: TAGStudy@iop.kcl.ac.uk



University of London



Evaluation of the Threshold Assessment Grid as a means of improving access from primary care to mental health services

Practice Manager Practice Name Address 1 Address 2 Address 3 Postcode

20th December 2004

Dear Practice Manager

NEvaluation of the Threshold Assessment Grid (TAG) as a means of improving access from primary care to mental health services.Ó

Thank you for agreeing to participate. We are pleased to inform you that you have been allocated to the IMMEDIATE START group. From <u>January 1st 2005</u> p lease complete a TAG form from the enclosed TAG packs every time you make a mental health referral to any of :-

- Community Mental Health Team
- Psychological Therapies Services
- Psychotherapy
- MIND Counselling Service
- Primary Care Counselling & Psychology Service
- Home Treatment Service

The protocol and ethical approval documents for this evaluation are available, should you wish to peruse them please contact me for a copy.

Once again, may we take this opportunity to thank you for making a positive contribution to improving access from primary to secondary mental health services.

Yours sincerely

Jo Wardle Project Coordinator

GPI.V2

Appendix 10 GP interview schedule for control group Evaluation of the Threshold Assessment Grid (TAG) as a means of improving access from primary care to mental health services Interview Schedule – last revised June 22nd 2005

Prior to interview:

Ensure you have blank TAGs for the GP to complete Record date, time, GP ID/Practice ID onto tape. Provide the GP Interview Information Form for perusal. Ensure consent form & payment forms are signed. State purpose of interview:

This interview forms part of a study aiming to improve access to adult community mental health services. It is intended for you to discuss and reflect on the process of referring to secondary services, in particular the CMHT. All information discussed throughout will remain confidential, and all reports from the study will be completely anonymised.

INTERVIEW QUESTIONS (CONTROL)

Section 1: Practice ethos

Can you describe the demographics of patients you see in your practice?
 Prompt: Ethnicity ?

2. What sorts of patients with mental health problems do you see in your practice?

Prompt: Why do you think that is?

Ask questions that help the GP to expand on the mental health problems mentioned

3. What resources are there available in your practice to help with these kinds of patients?

Prompt: Do you have any other Primary Care Resources they can access?

Do you have examples of patients presenting difficulties that you would refer to that service?

Has the availability of these services changed?

If so, why have these changes taken place?

Evaluation of the Threshold Assessment Grid as a means of improving access Could you explain why you thought that was the most appropriate service...

3. What resources are there available outside your practice to help with these kinds of patients?

Prompt: Such as Primary Care Counselling, Voluntary Agencies, ...

Do you have examples of patients presenting difficulties that you would refer to that service?

If GP gives confusing answers, or appears to be confused about the different services, ask them to elaborate on this. i.e.: This appears to be confusing, how do you deal with it?

Could you explain why you thought that was the most appropriate service...

Section 2: CMHT referrals

Do you have an opinion about working with the Community Mental Health Teams?

4. What prompts you to refer a patient to the CMHT?

5. Could you tell me about a recent patient you referred to the CMHT?

Prompts: Why did you refer them?

What did you hope the CMHT could do for them? What did they do for them? How do you feel about that? Was this ok for you? Was this ok for the patient and their supporting network/family? Does waiting list times impact on where you refer patients to?

6. What do you think are the criteria for the CMHT to accept a referral?

7. What role do you feel the CMHTs play in managing patients with mental health problems?

8. How do you feel about the way in which CMHTs ... deal with referrals?

... manage patients?

Evaluation of the Threshold Assessment Grid as a means of improving access **9. How do you communicate with these services?**

Is this adequate? How could it be improved?

10. How long have you been in practice?

11. Do you think this has changed since you have been in practice? In what way?

12. In general, could you describe changes that have occurred since you have been in practice for

the management of patients with mental health problems?

13. Do you feel the role of the Psychiatrist has changed over the past few years? In what way?

Prompts: Do you ever refer for a psychiatric opinion? How easy is this to achieve?

If not able to say as not in UK long, then how does it compare to where they come from?

14. What do you think of current guidelines about the role of the CMHT in the management of

patients with moderate to severe mental health problems?

15. Are there any other sorts of patients you would like to refer to the CMHT?

Prompts: a. Why?

b. What would you expect from such a referral?

16. Have you referred anyone to the CMHT recently and the referral has been refused? OR

Can you recall a patient whom you wanted to refer to the CMHT but you knew the referral

would be refused?

If GP cannot recall a particular patient, ask how they would feel if a referral was refused. How would you feel if this happened?

17. How did that feel for you?

18. Tell me about that patient?

Evaluation of the Threshold Assessment Grid as a means of improving access19. Did the CMHT let you know why they refused the referral? OR

Why did you think the referral would be refused?

Prompt: Can you think of any other reasons why CMHTs reject referrals?

20. How did you manage that particular patient?

21. What would you do in the future with a similar patient?

22. What would you do if you were undecided about how to manage a particular patient?

23. What support do you draw upon when making decisions about patients with mental health

problems?

Prompt: Inside &/or outside the practice (If previously mentioned time as a constraint, ask them to explain why this is a problem)

24. How does the experience of referring to CMHTs compare to the referral process for other secondary services?

Ask the GP to discuss how they feel about this

Risk

25. How do you decide if someone needs to be seen immediately, or this week or next week?

(i.e. what criteria do you use? How do you negotiate this with the patient?

26. This must be a very difficult part of your job. How do you feel about it?

Section 3: TAG

I am now going to ask you a couple of questions about the Threshold Assessment Grid tool.

Is this ok with you?

Evaluation of the Threshold Assessment Grid as a means of improving access27. Could you suggest alternative ways of improving access to CMHTs, apart from using the TAG?

Prompt: How could communications be improved with CMHTs

28. In relation to all patients in your last few surgeries that presented with mental health

problems, who you decided not to refer to the CMHT, could you complete a TAG for one of them and discuss with me why you decided not to refer them?

Prompt: Ask GP to talk through their decision-making process and the patients presenting difficulties

29. Could you tell me why you agreed to take part in the TAG trial?

()Prompts: a. What did you think you and your practice would get out of it?

b. Do you think this research will influence local policy? In what way?

Interview termination:

30. Is there anything I haven't asked you that you would like to say something about?

Thank you for taking the time to complete this interview.

Evaluation of the Threshold Assessment Grid as a means of improving access

Appendix 11 GP interview schedule for intervention group Evaluation of the Threshold Assessment Grid (TAG) as a means of improving access from primary care to mental health services Interview Schedule – last revised June 22nd 2005

Prior to interview:

Ensure you have blank TAGs for the GP to complete Record date, time, GP ID/Practice ID onto tape. Provide the GP Interview Information Form for perusal. Ensure consent form & payment forms are signed. State purpose of interview:

This interview forms part of a study aiming to improve access to adult community mental health services. It is intended for you to discuss and reflect on the process of referring to secondary services, in particular the CMHT. All information discussed throughout will remain confidential, and all reports from the study will be completely anonymised.

INTERVIEW QUESTIONS (CONTROL)

Section 1: Practice ethos

1. Can you describe the demographics of patients you see in your practice?

Prompt: Ethnicity ?

4. What sorts of patients with mental health problems do you see in your practice?

Prompt: Why do you think that is?

Ask questions that help the GP to expand on the mental health problems mentioned

3. What resources are there available in your practice to help with these kinds of patients?

Prompt: Do you have any other Primary Care Resources they can access?

Do you have examples of patients presenting difficulties that you would refer to that service?

Has the availability of these services changed?

If so, why have these changes taken place?

Could you explain why you thought that was the most appropriate service...
Evaluation of the Threshold Assessment Grid as a means of improving access

5. What resources are there available outside your practice to help with these kinds of patients?

patients :

Prompt: Such as Primary Care Counselling, Voluntary Agencies, ...

Do you have examples of patients presenting difficulties that you would refer to that service?

If GP gives confusing answers, or appears to be confused about the different services, ask them to elaborate on this. i.e.: This appears to be confusing, how do you deal with it?

Could you explain why you thought that was the most appropriate service...

Section 2: CMHT referrals

Do you have an opinion about working with the Community Mental Health Teams?

4. What prompts you to refer a patient to the CMHT?

5. Could you tell me about a recent patient you referred to the CMHT?

Prompts: Why did you refer them?

What did you hope the CMHT could do for them?

What did they do for them?

How do you feel about that?

Was this ok for you?

Was this ok for the patient and their supporting network/family?

Does waiting list times impact on where you refer patients to?

6. What do you think are the criteria for the CMHT to accept a referral?

7. What role do you feel the CMHTs play in managing patients with mental health problems?

8. How do you feel about the way in which CMHTs ... deal with referrals?

... manage patients?

9. How do you communicate with these services?

10. How long have you been in practice?

11. Do you think this has changed since you have been in practice? In what way?

12. In general, could you describe changes that have occurred since you have been in practice for

the management of patients with mental health problems?

13. Do you feel the role of the Psychiatrist has changed over the past few years? In what way?

Prompts: Do you ever refer for a psychiatric opinion? How easy is this to achieve?

If not able to say as not in UK long, then how does it compare to where they come from?

14. What do you think of current guidelines about the role of the CMHT in the management of

patients with moderate to severe mental health problems?

15. Are there any other sorts of patients you would like to refer to the CMHT?

Prompts: a. Why?

b. What would you expect from such a referral?

16. Have you referred anyone to the CMHT recently and the referral has been refused? OR

Can you recall a patient whom you wanted to refer to the CMHT but you knew the referral

would be refused?

If GP cannot recall a particular patient, ask how they would feel if a referral was refused. How would you feel if this happened?

17. How did that feel for you?

18. Tell me about that patient?

19. Did the CMHT let you know why they refused the referral? OR

Evaluation of the Threshold Assessment Grid as a means of improving access **Why did you think the referral would be refused**?

Prompt: Can you think of any other reasons why CMHTs reject referrals?

20. How did you manage that particular patient?

21. What would you do in the future with a similar patient?

22. What would you do if you were undecided about how to manage a particular patient?

23. What support do you draw upon when making decisions about patients with mental health

problems?

Prompt: Inside &/or outside the practice (If previously mentioned time as a constraint, ask them to explain why this is a problem)

24. How does the experience of referring to CMHTs compare to the referral process for other secondary services?

Ask the GP to discuss how they feel about this

Risk

25. How do you decide if someone needs to be seen immediately, or this week or next week?

(i.e. what criteria do you use? How do you negotiate this with the patient?

26. This must be a very difficult part of your job. How do you feel about it?

Section 3: TAG

I am now going to ask you a couple of questions about the Threshold Assessment Grid tool.

Is this ok with you?

27. Could you suggest alternative ways of improving access to CMHTs, apart from using the TAG?

Evaluation of the Threshold Assessment Grid as a means of improving access Prompt: How could communications be improved with CMHTs

28. In relation to all patients in your last few surgeries that presented with mental health

problems, who you decided not to refer to the CMHT, could you complete a TAG for one of

them and discuss with me why you decided not to refer them?

Prompt: Ask GP to talk through their decision-making process and the patients presenting difficulties

29. Could you tell me why you agreed to take part in the TAG trial?

()Prompts: a. What did you think you and your practice would get out of it?

b. Do you think this research will influence local policy? In what way?

Interview termination:

30. Is there anything I haven't asked you that you would like to say something about?

Thank you for taking the time to complete this interview.

Appendix 12 GP interview information sheet

Institute of Psychiatry

at The Maudsley

Health Services Research Department (Box P029) Institute of Psychiatry De Crespigny Park, Denmark Hill London. SE5 8AF. UK.

Tel: 020 7848 0570 Fax: 020 7277 1462 Email: TAGStudy@iop.kcl.ac.uk



University of London

Evaluation of the Threshold Assessment Grid (TAG) a means of improving access from primary care to mental health service

GP INTERVIEW INFORMATION

You are invited to take part in an interview that is a part of a study aiming to improve access to adult community mental health services. This sheet is intended as an outline of the study, and in particular the interview.

What is the purpose of this study?

The TAG has been developed to identify those people whose mental health problems are of sufficient severity to warrant referred to secondary mental health services. The overall purpose of the study is to ensure that people who are referred to adult Community Mental Health Teams (CMHTs) are seen as quickly as possible and assessed as quickly as possible. The other part of the study is investigating whether using the Threshold Assessment Grid (TAG) leads to improved access.

What does the interview involve?

To ensure that the findings from the randomised controlled trial fully incorporate the GP perspective, some GPs will be asked if they will be interviewed about their experiences using the TAG and to complete TAGs for some patients with mental health problems whom they chose not to refer. The interview will be individually negotiated with participating GPs, and expected to take around 30 minutes.

What are the possible benefits of my participation?

The short-term benefit is the opportunity for each GP interviewed to reflect on their process in referring to secondary services, in particular the CMHT. They will also be able to provide their opinion of the benefits, if any, of using the TAG when referring to CMH T. The medium-term benefit is contributing to the evidence base about whether using TAG does improve access to mental health services. Participating in these interviews will give GPs the opportunity of influencing future service developments. GPs participating in the interview will be given £100 for their time.

Confidentiality and Consent

Participation in this study is entirely voluntary. If you agree to take part, you may still withdraw from the study at any time, and non-participation will not affect your employment in any way. All presentations of the finding of the study will be anonymised. In the event of you suffering any adverse effects as a consequence of your participation in this study, you will be compensated through KingÕsCollege LondonÕsŌN Fault Compensation SchemeÕ

The Study Team

The Principal Investigator for this study is Dr Mike Slade, Consultant Clinical Psychologist in Rehabilitation, Croydon. If you have any questions or would prefer not to participate, please contact: Mairi Stewart (m.stewart@iop.kcl.ac.uk, 020 7848 0570).

Appendix 13 GP interview participation agreement

Institute of Psychiatry

Health Services Research Department (Box P029) Institute of Psychiatry De Crespigny Park, Denmark Hill London. SE5 8AF. UK.

at The Maudsley

Tel: 020 7848 0570 Fax: 020 7277 1462 Email: TAGStudy@iop.kcl.ac.uk



University of London

Evaluation of the Threshold Assessment Grid (TAG) as a means of improving access from primary care to mental health services

GP INTERVIEW AGREEMENT

The above study has been verbally described to me, and I have been given the written information sheet. I hereby give consent to participate in a 30 minute interview for the above study and will be reimbursed a £100 for the time. I understand that I can withdraw my consent for involvement at any time.

Signed:	ÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉ	

Name: ÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉ

Date ÉÉÉÉ/ÉÉ /ÉÉÉ. .

Witnessed by:

Signed: ÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉ

Name:	ÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉ

Date: ÉÉÉÉ/ÉÉ /ÉÉÉ.

GPIAv.3

Appendix 14 CMHT interview schedule



Evaluation of the Threshold Assessment Grid as a means of improving access from primary care to mental health services

Key Informants from CMHTs Interview Schedule

Prior to interview:

Record date, time, CMHT ID onto tape. Form for perusal.

Ensure consent form is signed.

Provide the CMHT Interview Information

State purpose of interview:

This interview forms part of a study aiming to improve access to adult community mental health services. It is intended for you to discuss and reflect on the process of receiving referrals, in particular from GPs. All information discussed throughout will remain confidential, and all reports from the study will be completely anonymised.

INTERVIEW QUESTIONS

1. Could you describe your role in the team? And the way the team works?

2. How do you view the role of the CMHT?

Prompt: i.e. enabling/functioning/containing risk/diagnosing/assessment/sign-posting

3. How do you see the role of the Psychiatrist within the CMHT?

Prompt: What is their style of working?

4. Could you describe what sort of patients your team offers a service to?

5. How appropriate do you think this role is?

Prompt: What sorts of patients would you like to see but cant?

6. Could you describe how referrals are dealt with at your referral meetings?

Prompt: Do you agree with decisions not to accept patients?

7. What factors do you consider in deciding whether to accept a referral?

Evaluation of the Threshold Assessment Grid as a means of improving access

Prompts: a) Are there particular factors that might make you accept a patient for assessment?

b) Are there particular factors on the referral form that make you refuse a referral?

c) What is the role of the referral letter (C) / referral form (M) in your decision to accept a patient?

d) How do you tend to use the information on the form/letter when making decisions about a referral?

e) What information would you want to see included in a referral?

f) How do you feel about receiving standardised forms compared to referral letters?

8. What do you perceive as being the problem in the referral process?

Prompts: a) What works well?

b) What isn't working well?

9. Does your prior knowledge of the GP affect the team decision to accept a referral? If so, how?

10. What difference has the TAG made in your referral meetings?

Prompts: a) How was TAG used in your meetings?

b) What does it add to the existing referral form (or letter in Croydon)?

c) Which particular questions in TAG do you think are important?

11. How do you think the GPs referring to your team have used the TAG?

12. Do you think that the criteria for accepting patients into CMHTs has changed during the time

you have worked in it?

13. Why do you think there are still problems in referring to the service?

Prompt: Why is it still difficult to sort out?

14. Has the role of the Psychiatrist changed over the last few years?

15. How do you think your CMHT works with primary care in general and your GPs in particular?

Prompts: a) How do you communicate with your GPs about a referral into the team and the team decision about whether a referral is accepted?

b) What works well?

Evaluation of the Threshold Assessment Grid as a means of improving access c) What isn't working well?

d) Could you think of ways of improving communication with your GPs?

16. Is there anything I haven't asked you that you would like to say something about?

Thank you for taking the time to complete this interview. KIIS $\nu 1$

Appendix 15 CMHT interview information sheet

Institute of Psychiatry

at The Maudsley

Health Services Research Department (Box P029) Institute of Psychiatry De Crespigny Park, Denmark Hill London. SE5 8AF. UK.

Tel: 020 7848 0570 Fax: 020 7277 1462 Email: TAGStudy@iop.kcl.ac.uk



University of London



KEY INFORMANTS FROM CMHTs

INTERVIEW INFORMATION

You are invited to take part in an interview that is a part of a study aiming to improve access to adult community mental health services. This sheet is intended as an outline of the study, and in particular the interview.

What is the purpose of this study?

The TAG has been developed to identify those people whose mental health problems are of sufficient severity to warrant referred to secondary mental health services. The overall purpose of the study is to ensure that people who are referred to adult Community Mental Health Teams (CMHTs) are seen as quickly as possible and assessed as quickly as possible. The other part of the study is investigating whether using the Threshold Assessment Grid (TAG) leads to improved referrals & access.

What does the interview involve?

To ensure that the findings from the randomised controlled trial fully incorporate the CMHT perspective, some key personnel from each CMHT in Croydon will be asked if they will be interviewed about their experiences receiving referrals, and using the TAG. The interview will be individually negotiated with participating team members, and expected to take around 30 minutes.

What are the possible benefits of my participation?

The short-term benefit is the opportunity for the team member interviewed to reflect on their teams processing referrals, in particular from GPs. They will also be able to provide their opinion of the benefits, if any, of having a TAG when receiving referrals. The medium-term benefit is contributing to the evidence base about whether using TAG improves access to mental health services. Participating in these interviews will give CMHT team members the opportunity of influencing future service developments.

Confidentiality and Consent

Participation in this study is entirely voluntary. If you agree to take part, you may still withdraw from the study at any time, and non-participation will not affect your employment in any way. All presentations of the finding of the study will be anonymised. In the event of you suffering any adverse effects as a consequence of your participation in this study, you will be compensated through KingQ College LondonQ ON Fault Compensation SchemeO

Appendix 16 Practice manager information letter

On TAG letterhead

ETitleČ ElnitialČ ESurnameČ EPractice_NameČ EAddress_1Č EAddress_2Č EcitycountyČ EPost codeČ

20th September 2004

Re: Threshold Assessment Grid (TAG) study

Dear ĒTitleČ ĒSurnameČ

I am writing to let you know about a change in practice that will be introduced by mental health services throughout Croydon in J anuary 2005. From that date, community mental health teams and other mental health services will ask for referrals to be accompanied by a completed **Threshold Assessment Grid (TAG)**.

What is TAG?

TAG is a brief assessment of the severity of a person $\tilde{\mathbf{O}}$ mental health problems. It is intended for use when referring people to mental health services, in addition to (not replacing) the referral letter. TAG was developed by primary care professionals (including many GPs) and secondary mental health staff, mental health service users and carers. GPs like using it because it is a quick and simple aid to referrals. A copy is enclosed.

Is this just another form being introduced without consultation or evaluation?

No. This referral practice change has been introduced in close liaison with the mental health development group, chaired by Croydon PCT. The practice change will be eva luated, to test whether using TAG leads to improved access from primary to secondary mental health services. The evaluation is funded by NHS Service Development and Organisation Programme, and all the GP mental health leads from Croydon were included as applicants and supporters in the bid.

The evaluation design is a multi-site randomised controlled trial in Croydon and Manchester. Croydon GP p ractices will be randomly allocated to e ither continue with their existing referral approach or to also complete a TAG when referring. All referrals will be rated by the mental health service to e valuate the benef its and costs of this change of practice.

The research is being conducted by the Health Services Research Department, Institute of Psychiatry, with the full support of Croydon PCT and South London and Maudsley Mental Health NHS Trust. The research team would value the opportunity to meet with you at your convenience in the next month or two, to tell you more about the practice change and associated evaluation. We will be contacting you soon to discuss whether this is possible.

Best wishes.

Yours sincerely

Evaluation of the Threshold Assessment Grid as a means of improving access

Appendix 17 Letter from Croydon Borough director to GPs

From: Steve Davidson



South London and Maudsley NHS

NHS Trust

TAG Study Project Co-ordinator E-mail: <u>TAGstudy@iop.kcl.ac.uk</u>

Maudsley Mental Health NHS Trust

South London and

Suite A, 6th Floor Carolyn House 22-26 Dingwall Road Croydon CR0 9XF

16 December 2004

Dear Health and Social Care Colleagues

Re: New referral form for adult mental health services

As a referrer to mental health services in Croydon I am writing to inform you about a new referral form we will be introducing for use when making referrals to the following services in Croydon:

- Community Mental Health Teams
- Croydon Primary Care Counselling and Psychology Service
- Psychological Therapies Service
- Psychotherapy Service

The main change is that referrals should include a Threshold Assessment Grid (TAG), a quick and simple assessment of severity of a person $\tilde{\mathbf{G}}$ mental health problems - across 7 domains including, safety, risk, needs and disabilities. The form has been developed in consultation with the Mental Health Development Meeting, Mental Health Teams, and Primary Care Staff. TAG is r ecommended for use in *Fast-Forwarding Primary Care Mental Health* (Department of Health, 2002) for use when making referrals. TAG packs, which include information and guidance checklists, will be distributed to frequent referrers in December, 2004.

We have also been successful in securing national funding from the NHS SDO Programme to allow evaluation of whether using the new form improves access for your clients to mental health services. The evaluation is taking place in Croydon and Manchester, and is b eing led by Dr Mi ke Slade (Consultant Clinical Psychologist, Croydon).

We will be piloting the new referral form with half the Croydon GP practices from January 2005 for six months. The evaluation during this period will (i) allow a review of the usefulness of the form within CroydonŹ and (ii) inform our understanding of how the existing referral systems work. As part of our ongoing service review, this will help us to configure mental health services which are both accessible and efficient.

What will this mean for your service?

Using the new referral form as an adjunct to the usual referral letter from 1 January 2005

Appendix 18 Final recruitment letter to GP senior partners



Senior Partner Practice Name Address Postcode

1st December 2004

Dear Senior Partner

I and myteam have been trying for some time to make an appointment with your practice in order to discuss the new referral form for Adult Mental Health Services, but have unfortunately been unable to do so. After consultation with the Mental Health Development Group, the new referral form is being piloted in Croydon from January to June 2005 and is designed for use when referring from primary to secondary mental health services. You should have received a letter from us some time ago, and also a letter from Steve Davidson, Head of Borough Services for Adult Mental Health, which give details of the referral form and its planned evaluation. I have enclosed copies of these letters and the referral form.

As agreed with the Croydon PCT, we will be a llocating GP practices to immediate start and delayed start in early December. Therefore, if you wish to raise any issues/concerns then please do so as soon as possible, ideally before 9 December 2004, and we will seek to address these. We would be happy to either speak to you on the telephone, or to visit your practice. **My contact number is 020 7848 0570**. If we do not hear from you, then we will proceed to allocate your practice to immediate or delayed start, and will write to you again.

Best wishes

Jo Wardle Project Co-ordinator

Enc

Appendix 19 Reminder letter to intervention group practices

From: Jo Wardle

Institute of Psychiatry

at The Maudsley

Health Services Research Department (Box P029) Institute of Psychiatry De Crespigny Park, Denmark Hill London. SE5 8AF. UK. Tel: 020 7848 0570 Fax: 020 7277 1462 Email: TAGStudy@jop.kcl.ac.uk



University of London



Dear Dr -----

Re: New referral form for adult mental health services

Your practice was allocated for the <u>immediate start</u> (1 January, 2005) to pilot the new referral practice introduced for use when making referrals to the following services in Croydon:

- Community Mental Health Teams
- Croydon Primary Care Counselling and Psychology Service
- Psychological Therapies Service
- Psychotherapy Service

The main change is that referrals should include a <u>Threshold Assessment Grid</u> (<u>TAG</u>), a quick and simple assessment of severity of a person \tilde{O} mental health problems - across 7 domains including, safety, risk, needs and disabilities. The form has been developed in consultation with the Mental Health Development Meeting, Mental Health Teams, and Primary Care Staff. <u>TAG is recommended</u> for use in Fast-Forwarding Primary Care Mental Health (Department of Health, 2002) for use when making referrals. We have a lso been successful in securing national funding from the NHS SDO Programme to allow evaluation of whether using the new form improves access for your clients to mental health services. The evaluation is taking place in Croydon and Manchester, and is being led by Dr Mike Slade (Consultant Clinical Psychologist, Croydon).

TAG packs, which included information and guidance checklists, were distributed to your practice in December, 2004. It has now been a month since the TAG Packs were introduced Š and to date only a small number of TAG forms have been attached to referral letters to the Mental Health Teams. To effectively (and in a timely manner) do an ev aluation we require the GPs provided with the TAG Packs to <u>attach a co mpleted TAG form with their referral letter.</u>

This is a friendly reminder to Medical Practices and their General Practitioners that not only is the completion of the TAG now <u>a requirement for referral to the Croydon Mental Health Teams</u>, but essential for this pilot study (to review of the usefulness of the form within Croydon, as well as inform our understanding of how the existing referral systems work) to be undertaken.

Appendix 20 Reminder letter TAG Manchester



The University of Manchester Faculty of Medical and Human Sciences School of Medicine Division of Primary Care

> The University of Manchester Rusholme Health Centre, Walmer Street, M14 5NP Telephone: 0161 256 3015 ext 290 Fax: 0161 256 1070 Email:carolyn.montana@manchester.ac.uk Website: www.manchester.ac.uk

Dr Practice

Date

Dear Dr

Evaluation of the Threshold Assessment Grid (TAG) as a means of improving access from primary care to mental health services

Manchester South Team 2 CMHT

As you are aware, your practice agreed to take part in the above trial which involves completing and attaching a TAG questionnaire to each referral to the above CMHT. The team received 2 referrals from you this week and unfortunately neither had a completed TAG attached.

Please could you ensure that TAGs are attached in the future. Please do not hesitate to contact me if you have any queries regarding the study.

May we take this opportunity to thank you for your time and patience during the trial.

Yours sincerely

Carolyn Montana Researcher

Appendix 21 GP trial extension letter

Institute of Psychiatry

at The Maudsley

Health Services Research Department (Box P029) Institute of Psychiatry De Crespigny Park, Denmark Hill London. SE5 8AF. UK.

Tel: 020 7848 0570 Fax: 020 7277 1462 Email: TAGStudy@iop.kcl.ac.uk



University of London



31 May 2005

Dear

Re: Evaluation of the Threshold Assessment Grid (TAG)

Many thanks for your involvement in evaluating the new referral form for adult mental health services. This letter is to inform you that the evaluation will be extended. Since you are in the group of Croydon GP practices who are being asked to use the TAG, please continue to use the TAG when making a referral to adult mental health services until 30 September 2005.

The evaluation has been extended to increase the number of TAGaccompanied referrals. If there is anything we can do to support you and your practice colleagues in using the TAG, please let us know. In case it is helpful, I enclose a TAG pack for use when referring.

Best wishes.

Yours sincerely,

Jo Wardle Project Co-ordinator Appendix 22 Blind rating referral participation agreement On Institute of Psychiatry letterhead



Evaluation of the Threshold Assessment Grid as a means of improving access from primary care to mental health services

BLIND REFERRAL RATING

- PANEL MEMBER AGREEMENT

The above study has been verbally described to me, and I have been given the w ritten information sheet. I he reby give consent to participate in the panel formed to rate a selection of anonymised GP referral letters for the above study and will be reimbursed £50 for my time. I understand that I can withdraw my consent for involvement at any time.

Name: ÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉ

Date ÉÉÉÉ/ÉÉ /ÉÉÉ. .

Witnessed by:

Signed:	ÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉ
---------	---------------------

Date: ÉÉÉÉ/ÉÉ /ÉÉÉ.

BRRAv.1

Appendix 23 Blind rating referral information sheet

Institute of Psychiatry

at The Maudsley

Health Services Research Department (Box P029) Institute of Psychiatry De Crespigny Park, Denmark Hill London. SE5 8AF. UK.

Tel: 020 7848 0570 Fax: 020 7277 1462 Email: TAGStudy@iop.kcl.ac.uk



University of London

Evaluation of the Threshold Assessment Grid as a means of improving access from primary care to mental health services

BLIND REFERRAL RATING

- PANEL MEMBER INFORMATION

You are invited to take part in a P anel that is a part of a study aiming to improve access to adult community mental health services. This sheet is intended as an outline of the study, and in particular the duties & rights of the panel.

What is the purpose of this study?

The TAG has been developed to identify those people whose mental health problems are of sufficient severity to warrant referred to secondary mental health services. The overall purpose of the study is to ensure that people who are referred to adult Community Mental Health Teams (CMHTs) are seen as quickly as possible and assessed as quickly as possible. The other part of the study is investigating whether using the Threshold Assessment Grid (TAG) leads to improved referrals & access.

What does the panel involve?

The panel is comprised of experienced CMHT health professionals to represent a multi-disciplinary opinion on the quality of GP referral letters from both the control & intervention practices. Each panel member will be provided with 60 anonymised GP referral letters, and asked to rate each letter on three factors: appropriateness; ease to identify urgency of referral; & ease to identify which professional should do the initial assessment. After a review of the ratings by the Project Co-ordinator the Panel may be convened for a short meeting to discuss any disagreements. Panel members will be reimbursed £50 for their time.

What are the possible benefits of my participation?

The short-term benefit is the opportunity for the panel member to reflect on best practice for mental health referrals, in particular from GPs. The medium-term benefit is contributing to the evidence base about whether using TAG improves access to mental health services. Participating in this panel will give the participating health professionals the opportunity of influencing future service developments.

Confidentiality and Consent

Participation in this study is entirely voluntary. If you agree to take part, you may still withdraw from the study at any time, and non-participation will not affect your employment in any way. All presentations of the finding of the study will be anonymised. In the event of you suffering any adverse effects as a consequence of your participation in this study, you will be compensated through KingÕ College LondonÕ ÕNo Fault Compensation SchemeÕ

Appendix 24 Trial protocol – please see separate document

Appendix 25 GP contact rate sheet



SERVICE USAGE FORM Š GP PRACTICE

Your Name: ÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉ

GP Practice: ÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉ

Date Form Completed: ÉÉÉÉÉÉÉÉÉÉ

Please indicate how many times the following patients have seen a GP at your practice in the two time periods detailed below:

Name/Database ID Number of patient	Date of Birth	TIME PERIOD 1 Number of GP contacts:-		TIME PERIOD 2 Number of GP contacts:-		
		FROM	то	Number of times seen	SINCE	Number of times seen
Jane Doe	03/09/73	30/09/04	31/03/04		01/04/05	

Appendix 26 GP invitation to interview

From Carolyn Montana



The University of Manchester Faculty of Medical and Human Sciences School of Medicine Division of Primary Care

> The University of Manchester Rusholme Health Centre, Walme Manchester M14 5NP Telephone: 0161 256 3015 ext 290 Mobile: 07946 823070 Fax: 0161 256 1070 E-mail: carolyn.montana@manchester.a c.uk Website: www.manchester.ac.uk

Dr Practice

Date

Dear Dr

TAG Study

You are invited to take part in an interview that forms part of this study which is aimed at improving patient access to adult community mental health services.

The randomised controlled trial commenced in January 2005 for a period of 6 months initially, in wł 50% of G Ps in the study are completing a TA G score sheet for each patient they refer to tl community mental health team (CMHT). To ensure that the findings from this trial fully incorporate GP perspective, we would like to interview you about your experiences of referring to CMHTs and you to complete TAGs for some patients with mental health problems who you have chosen no refer. This interview will take about 20 minutes to complete and we would like to tape this intervie you agree.

The short-term benefit is the opportunity for each GP interviewed to reflect on their process in refer to secondary services. You will also be able to provide your opinion of the benefits, if any, of using TAG when referring to CMHTs if you are a GP in the intervention group. The medium-term benef contributing to the evidence base about whether using TAG does improve access to mental he services and thus determining future service developments.

Participation in this aspect of the study is entirely voluntary. We are able to offer a paymen recompense you for your time in participating in the interview.

All presentations of the finding of the study will be anonymised. In the event of you suffering adverse effects as a consequence of your participation in this study, you will be compensated throw King's College London's 'No Fault Compensation Scheme'.

Appendix 27 Referral proforma

Community Mental Health Team Referral Form

FOR ROUTINE REFERRALS ONLY RoutineÕreferrals will be allocated weekly; Any more urgent referrals must be

telephoned through

Worker Taking		Referrer G Details:			
Referral (Name)		Name:			
Client name: M / F		Address / Agency:			
Known aliases:					
Address:					
Postcode:		Postcode:	Tel No:		
DoB:ÉÉ ./ÉÉ. /ÉÉ.	Tel No:	Date & Time received:			
GP Name:		Main Carer / NoK:			
GP Address:		Address:			
Postcode:	Tel No:	Postcode:	Tel No:		
Psychiatrist Name:		NHS No:			
Base:	Tel No:	SSD No:			
Spoken language: Interpreter / signer needed? Yes / No Ethnicity:					
		s CPA / Care Plan available? at you would like the service to de			
meet the Trusts criteria?	be specific and state what		0. Does client		
Referral details: include deta	ails of the following: Risk	(see over page), Medication (s	ee over page),		
Mental State, Circumstance	es, Psychiatric History				

REFERRAL DETAILS continued Š please include an additional sheet if more space needed					
Medication details: (current and past)					
History of RISK / THREAT? Yes /No to SELF / OTHERS (indicate which) Details:					
History of Neglect / Exploitation? Yes / No Details:					
Likely problems with initial contact (<i>personal/environmental: language/interpreters</i>) and recommended precautions:					
Is client aware of referral? Yes / No Details:					
Is client agreeable to service? Yes / No Details:					
Professional /Agencies & Other Key Personnel (Main carer, partner, children, employer, family, friends, nearest relative)					
Name Agency Tel Name Agency No. Tel No.					
Household composition (list members, especially dependents)					

Evaluation of the Threshold Assessment Grid as a means of improving access

Appendix 27 continued

Outcome (CMHT staff use only)					
Accepted for initial assessment working days	To be seen within 4hrs	48hrs	14		
OR signposted toÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉ					
Referrer notified How? Letter / fax / otherÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉ	/ phone / / .É/ÉÉÉ				
Worker name:ÉÉÉÉÉÉÉÉÉÉÉS ignatu	ureÉÉÉÉÉÉÉÉÉÉÉÉÉ	dateÉÉ/É	./ÉÉÉ		
Closed to allocation Team Manager SignatureÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉÉ					

Evaluation of the Threshold Assessment Grid as a means of improving access Appendix 28 Reminder poster (Manchester)

MANCHESTER 1824



Evaluation of the Threshold Assessment Grid as a means of improving access from primary care to mental health services

REFERRALS TO:

MANCHESTER SOUTH

TEAM 3

COMMUNITY MENTAL

HEALTH TEAM

(CMHT)

PLEASE ENSURE THAT A **COMPLETED TAG QUESTIONNAIRE** IS ATTACHED

Any queries contact: Carolyn – 0161 256 3015

Faculty of Medical and Human Sciences

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Appendix 29 Other services letter



Faculty of Medical and Human Sciences School of Medicine

Division of Primary Care

The University of Manchester Rusholme Health Centre, Walme Manchester M14 5NP Telephone: 0161 256 3015 ext 290 Mobile: 07946 823070 Fax: 0161 256 1070 E-mail: carolyn.montana@manchester.a c.uk Website: www.manchester.ac.

Contact Centre

INFORMATION SHEET

This study will look at ways of improving access to adult community mental health services. This information sheet outlines the study.

What is the purpose of this study?

The purpose is to ensure that people who are referred to adult mental health services are seen as quickly as possible and assessed as quickly as possible. This project will i nvestigate whether using the Threshold Assessment Grid (TAG) leads to improved access. TAG is a quick and simple assessment of the severity of a personÕsmental health problems, with established psychometric properties. The TAG has been developed to identify those people whose mental health problems are of sufficient severity to warrant referral to secondary mental health services. This study will take place in Croydon and Manchester. The duration will be around six months.

What does this study involve?

Half of your referring GPs (and all other referrers) will be asked to include a completed TAG and specific information in their referral to your team. This study is testing whether this extra information helps secondary services to respond to the referral. Your team will be asked to rate each referral on the basis of the information provided (which may or may not include a completed TAG). The rating form will be short, simple to u se, and take 1 minute to complete.

What are the possible benefits of my participation?

The short-term benefit is the opportunity to benefit from a carefully developed approach to encouraging best practice in referrals. The medium-term benefit is contributing to the evidence base about whether using TAG does improve access to mental health services. Participating in this study will give Evaluation of the Threshold Assessment Grid as a means of improving access

Appendix 30 GP summary – Croydon

Institute of Psychiatry

at The Maudsley

Health Services Research Department (Box P029) Institute of Psychiatry De Crespigny Park, Denmark Hill London. SE5 8AF. UK.

Tel: 020 7848 0570 Fax: 020 7277 1462 Email: TAGStudy@iop.kcl.ac.uk



University of London



Evaluation of the Threshold Assessment Grid as a means of improving access from primary care to mental health services

Feedback to General Practitioners

1. Summary of aims of TAG study

The Threshold Assessment Grid (TAG) is a one-page 7-tick staff-rated standardised assessment that has been developed to identify those people whose mental health problems are of sufficient severity to warrant access to secondary mental health services.

The **aim** of this multi-method study was to reduce access inequities between primary care and secondary mental health services. The study had three **objectives**:

To test whether asking General Practitioners (GPs) to complete the TAG in addition to the usual referral form improves primary care referrals to adult mental health services. Two quantitative hypotheses were tested:

Hypothesis (i) Using the TAG will significantly improve the agreement between the GP and the adult mental health team on the appropriateness of the referral;

Hypothesis (ii) Receiving a TAG with a referral letter will make it significantly easier for the mental health team to identify (a) the urgency of the referral and (b) the most appropriate professional to make the initial assessment.

To determine the cost-effectiveness of using the TAG.

To explore the population-level resource implications for services from using the TAG.

The study took place in Croydon and Manchester (Central & South) between January and September 2005.

2. Results of RCT

- There was no effect on the primary outcomes. We are still investigating secondary outcomes.
- There is evidence of a cost impact for primary care in terms of changes in primary care contact rates - analysis of this health economic data is continuing.
- There is no evidence of any change in prescribing of antipsychotics and antidepressants by GPs [data collected in Croydon only].

There were barriers to implementation of the TAG at different levels and these barriers were explored using qualitative methodologies during the course of the trial.

Appendix 30 continued

3. Brief summary of the qualitative work

The qualitative work helped to describe and explain the barriers to the implementation of the TAG as well as developing our ideas about the relationship between primary care and CMHTs and the primary/secondary interface in general.

The following themes were particularly important:

Barriers to the use of TAG:

- Referrers simply forgot to use TAG
- Fears of TAG being simplistic
- Concern by GPs that TAG may act as a barrier further restricting access to secondary services

Factors which encourage the use of TAG:

- TAG was seen to complement existing referral forms
- TAG was seen to focus decision-making by CMHTs

Referrals and Access to Nexpert knowledgeÓ:

- When GPs reach their own threshold, they need to ask for help from a fellow professional, particularly a specialist who is perceived to have expert knowledge
- Existing systems are not seen as rational and therefore not amenable to transparent, logical debates about protocols and guidelines
- Further guidelines about referrals are not the answer

Lessons for other services:

- Other areas of the health service can learn from the experience in mental health, with the perception that there is an increasing separation between the GP and the specialist
- There are different expectations on how to access psychiatric specialist knowledge
- GP expectation is that the referral to a CMHT is a means of accessing a psychiatrist

4. Implications for service development

Local

Study results are currently being fed back to Croydon secondary mental health services, the Primary Care Trust and general practitioners.

National

A final report is currently being prepared for submission to the funding body [SDO] and should influence future policy decision-making. Academic papers will be submitted to peer-reviewed journals to disseminate the study.

Appendix 31 GP summary – Manchester



Faculty of Medical and Human Sciences School of Medicine Division of Primary Care

> The University of Manchester Rusholme Health Centre, Walme Manchester M14 5NP Telephone: 0161 256 3015 ext 290 Mobile: 07946 823070 Fax: 0161 256 1070 E-mail: carolyn.montana@manchester.a c.uk Website: www.manchester.ac.

January 2006

Feedback to GPs

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The **aim** of this multi-method study was to reduce access inequities between primary care and secondary mental health services. The study had three **objectives**:

To test whether asking General Practitioners (GPs) to complete the TAG in addition to the usual referral form improves primary care referrals to adult mental health services. Two quantitative hypotheses were tested:

Hypothesis (i) Using the TAG will significantly improve the agreement between the GP and the adult mental health team on the appropriateness of the referral;

Hypothesis (ii) Receiving a TAG with a referral letter will make it significantly easier for the mental health team to identify (a) the urgency of the referral and (b) the most appropriate professional to make the initial assessment.

To determine the cost-effectiveness of using the TAG.

To explore the population-level resource implications for services from using the TAG.

The study took place in Central and South Manchester and Croydon between January and September 2005.

2. Results of RCT

- There was no effect on the primary outcomes, we are still investigating secondary outcomes.
- There is evidence of a cost impact for primary care in terms of changes in primary care contact rates, analysis of this health economic data is continuing.
- There is no evidence of any change in prescribing (of antipsychotics and antidepressants) by GPs [data in Croydon only].
- There were barriers to implementation of the TAG at different levels and these barriers were explored using qualitative methodologies. During the course of the trial

3. Brief summary of the qualitative work

Appendix 31 continued

Barriers to the use of TAG:

- □ TAG simply forgotten by referrers
- □ Fear of TAG being simplistic
- Concern by GPs that TAG may be a barrier and further restrict referral

Factors which encourage the use of TAG:

- □ TAG was seen to complement existing referral forms
- □ TAG was seen to focus decision-making by CMHTs

Referrals and Access to Nexpert knowledgeÓ:

- When GPs reach their own threshold, they need to ask for help from a fellow professional, particularly a Specialist who is perceived to have expert knowledge
- Existing systems are not seen as rational and therefore not amenable to transparent, logical debates about protocols and guidelines
- Further guidelines about referral are not the answer

Lessons for other services:

- Other areas of the health service can learn from the experience in mental health, with the perception that there is an increasing separation between the GP and the Specialist
- There are different expectations on how to access psychiatric specialist knowledge
- GP expectation is that the referral to a CMHT is a means of accessing a psychiatrist

4. Implications for service development

A final report has been submitted to the funding body [SDO] and should influence future policy decision-making. Papers will be submitted to peer-reviewed journals to disseminate the study.

Locally the study results have been fed to the Manchester Mental Health and Social Care Trust and the use of TAG is being considered by a working group investigating the use of defined schedules as part of the care pathway.

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Linda Gask <u>I.gask@manchester.ac.uk</u> Professor of Primary Care Mental Health

Carolyn Montana Researcher carolyn.montana@manchester.ac.uk

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Addendum

This document was published by the National Coordinating Centre for the Service Delivery and Organisation (NCCSDO) research programme, managed by the London School of Hygiene & Tropical Medicine.

The management of the Service Delivery and Organisation (SDO) programme has now transferred to the National Institute for Health Research Evaluations, Trials and Studies Coordinating Centre (NETSCC) based at the University of Southampton. Prior to April 2009, NETSCC had no involvement in the commissioning or production of this document and therefore we may not be able to comment on the background or technical detail of this document. Should you have any queries please contact sdo@southampton.ac.uk.