Research Brief (10/1010)
Call for proposals: Unplanned hospital admissions

1. The NIHR SDO programme objectives

The NIHR Service Delivery and Organisation programme is funded by the NIHR, with contributions from NISCHR in Wales. The NIHR SDO programme improves health outcomes for people by:

- Commissioning research and producing research evidence that improves practice in relation to the organisation and delivery of health care, and

- Building research capability and capacity amongst those who manage, organise and deliver services – improving their understanding of the research literature and how to use research evidence.

The primary audience for SDO commissioned research is decision makers in the NHS in England and Wales – particularly managers and leaders in NHS organisations. We focus our research commissioning on topics and areas where we think research evidence can make a significant contribution to improving decision making, and so to improving the organisation and delivery of healthcare to patients.

Further information on the NIHR SDO programme, including a list of past, current and recently commissioned projects, can be found on the SDO website: www.sdo.nihr.ac.uk

2. Background to this call

This call addresses the growth in health care which is provided at less than 24 hours notice (1). This can be termed unscheduled. In recent years, many changes have occurred to the range of services available to patients seeking unscheduled help. Traditional services such as emergency ambulance, hospital accident and emergency (A&E) departments, general practice (GP) both in- and out-of-hours, and community pharmacies have been joined by newer services. These include NHS Direct telephone and online services, walk-in centres, minor injury units, dental service centres, community mental health teams and such emergency social care facilities as over-night beds in residential homes.

Patients seeking unscheduled care may not attend or consult a single service; instead, they may make several contacts with the same or different services. Concerns have been expressed about the ability of services to deal with the rising demand for unscheduled care and shortfalls in integrated service delivery (2). These concerns are most apparent in relation to unplanned hospital admissions, which is the specific focus of this call. These admissions are defined as those for patients who are not on appointment or waiting lists with urgent health care needs.

Annual growth in unplanned hospital admissions has been a continuing trend. This averaged 5% in England between 2007-2008 and 2008-9, and the expansion continues (3, 18). Unplanned admissions are seen as ‘expensive in terms of resource use’ as well as ‘distressing for patients and families’. Fundamentally they ‘create uncertainty for those responsible for planning and delivering services’ (4).

2.1 Policy context

Because of the operational pressures with which it is associated, unscheduled care has been the subject of considerable attention over the past decade. In 2001, the Department of Health published the Carson Report (5) which recommended a new model for the provision of out of hours services based on prompt response times, simplified access and integrated delivery of services. This was followed in 2004 by the publication of the *Transforming Emergency Care in England* (Alberti) report (6). This recognised that to further develop effective emergency provision, NHS organisations must look beyond secondary care to extend the scope of primary and social care facilities.

More recently the focus of policy has been on long term conditions and the need to incentivise shifts of care from hospital settings. The 2005 *Long Term Condition (LTC) National Service Framework* (7) identified that eight of the top eleven causes of hospital admissions are LTC. This pointed to the need for services to help people with LTC's when their condition reaches crisis point, and the shortfalls in on-going, coordinated support to prevent such crises. As a follow up in March 2007 the NHS Institute for Innovation and Improvement published a *Directory of Ambulatory Emergency Care for Adults* (8). The directory lists conditions that can be clinically managed outside hospital, with appropriate and prompt access to diagnostic services and specialist advice, following its publication the Department of Health has sought to contain the level of unplanned hospital admissions through financial incentive mechanisms. These included capped allocations and a tariff of 30 per cent for all emergency activity above 2008/09 levels for 2010/11.

2.2. State of research

A systematic review in 2000 of the appropriateness of hospital admissions in the UK found that 6-20% of emergency medical admissions were inappropriate, depending on the appropriateness tool used, the sample, and the admitting specialty (9). Since this review the trend in growth has continued upwards and this is also apparent in other countries. Although there are individual instances of European provinces, such as Bologna and Florence in Italy, developing effective ways of rebalancing primary and social care, most of the evidence on the cost effectiveness of reducing admissions comes from the United States. Ways to reduce admissions include case management observation units for the evaluation of acute conditions, and the provision of home health care (10, 11).

Over the past three years important research has been undertaken. In 2006 research was carried out to evaluate the evidence base for various interventions along the unscheduled care pathway and found that there is no clear evidence about the interventions that work best across many different disease types, to reduce unscheduled admissions and hospital stays (12). In 2007 a review of the urgent care literature was commissioned and found that improving the quality of care provided for patients included improving responsiveness, waiting times and patient journeys. The patient needs to be seen by the professional that is best able to meet their needs (13). In 2008, The Healthcare Commission published "*Not just a matter of time. A review of urgent and emergency care services in England*" (14). Its conclusion was that although most people understand the role of their local GP and A&E department, many are either less aware of, or less confident in using the range of new services.

The continuing work of Sheffield University on Emergency and Urgent Care Networks, as part of the Department of Health's Policy Research Programme provides evidence on the benefits of networks and what makes them effective, operating in a two-tier structure and

with senior leadership. It is clear that urgent and emergency care services are enhanced if they are commissioned and delivered in an integrated way (15, 16,). However, the most recent Sheffield research published through the Department of Health in July 2010 (17) includes a series of 11 Medline based scooping reviews, which again emphasise the 'scarcity' and 'lack of robustness' of empirical research evidence in relation to such areas as change management, and quality and performance measurement in urgent and emergency health care.

The Nuffield Trust's work on understanding trends in emergency care reports on patterns of increasing activity and demand for urgent care since 2004, by exploring local, regional and national trends in emergency admissions, out of hours care and A&E attendance (18). Its findings contain significant messages for NHS management in relation to major variations between comparable PCTS and geographic areas, and the connections to changing GP referral thresholds and the increased use of short stay admission.

The Thematic Research Network for emergency and UnScheduled Treatment (TRUST), funded by the National Institute for Social Care and Health Research (NISCHR) was set up in 2005 and aims to report on the imbalance between investment and research in emergency and unscheduled care.

SDO has funded the following studies that have partial overlaps to unscheduled care/unplanned admissions

- *08/1519/98*: A multi centre community intervention trial to evaluate the clinical and cost effectiveness of emergency care practitioners. Available at http://www.sdo.nihr.ac.uk/projdetails.php?ref=08-1519-98.
- *08/1519/97*: The impact of changing workforce patterns in emergency and urgent out-of-hours care on patient experience, staff practice and health system performance. Available at http://www.sdo.nihr.ac.uk/projdetails.php?ref=08-1519-97
- *08/1304/041:* Multi-centre evaluation of the role of chest pain units in the NHS. Available at http://www.sdo.nihr.ac.uk/projdetails.php?ref=08-1304-041
- *08/1204/029:* Reducing attendance and waits in A&E departments: a review and survey of present innovations survey of present innovations. Available at http://www.sdo.nihr.ac.uk/projdetails.php?ref=08-1204-029
- *08/1304/43*: The costs and benefits of managing low priority 999 ambulance calls by NHS Direct nurse advisers. Available at http://www.sdo.nihr.ac.uk/projdetails.php?ref=08-1304-43.
- 0*8/1504/112:* What is the optimum model of service delivery for transient ischaemic attack? Available at http://www.sdo.nihr.ac.uk/projdetails.php?ref=08-1504-112

The Medical Research Council (MRC), NIHR Research for Patient Benefit and the NHS are also currently involved in commissioning a programme of various studies and evaluations focussing, in particular, on GP practice factors and alternative clinical approaches. A systematic review of predictors of hospital admissions and interventions will be completed by September 2011. Abstracts and protocols for some of the projects are available from http://www.phc.bris.ac.uk/phcdb/research/projects/projdetails.asp?ProjectID=94; http://www.wales.nhs.uk/sitesplus/888/page/43688 and http://www.mrc.ac.uk/ResearchPortfolio/Grant/Record.htm?GrantRef=G0501936&CaseId=7221.

Ongoing systematic literature reviews are also being funded by the South West GP Trust and NHS Wales on explanatory risk factors of unplanned hospital admissions. The abstracts are available from

http://www.phc.bris.ac.uk/phcdb/research/projects/projdetails.asp?ProjectID=94 and http://www.wales.nhs.uk/sitesplus/888/page/43688).

2.3. Summary

Commissioners and providers increasingly understand unscheduled care services as a system, and assess the performance of the system as well as the services within it. The aim is to address a range of challenges, which include reducing urgent referral and self entry demand, treating more people closer to home, improving services for patients with life-threatening conditions and improving public awareness and understanding of the full range of urgent and emergency care services available. There is a need for research particularly in relation to the management requirements of these challenges, and their organisational causes and consequences.

3. Remit of this call: main topic areas identified

The focus of this call is research to prevent and reduce unplanned hospital admissions. The context is that of unscheduled care within health systems. Effective working arrangements between secondary and primary care agencies are integral to these outcomes. Proposals are invited for primary research which examines the organisational behaviours, systems and relationships across boundaries required to prevent and reduce unplanned hospital admissions. We have identified four particular themes for research:

3.1. The regulation or control of health systems for control of unplanned admissions

3.2. Commissioning for control of unplanned hospital admissions

3.3. Acute care workload management

3.4. Improvements in demand management that address increases in unplanned admissions

Individual proposals may cover either one or more of the above themes. Proposals which do not address one or more of these themes will not fall within the remit of this call for proposals.

3.1. The regulation or control of health systems for control of unplanned admissions

The geographical variations in rates of unplanned admissions plausibly reflect different thresholds for referral in primary care, different admission thresholds by hospitals, and different community and patient expectations (18). Performance monitoring criteria have been centrally determined. Evidence is required to enable health care agencies to undertake together more relevant and more contextual approaches to the local regulation or control of health systems which help prevent and reduce unplanned admissions. These may include research on:

- existing methods and mechanisms employed in performance monitoring
- geographical assessments explaining trends in unplanned admissions
- case studies of effective local systems regulation.

3.2 Commissioning for control of unplanned admissions

The additional activity and costs represented by unscheduled care and in particular, unplanned admissions place growing burdens on the allocations of commissioning agencies. In many places contractual pressures have become more severe, particularly in the winter months prior to the end of the NHS financial year. Awareness of these pressures strains relationships between primary and secondary care clinicians and managers, and may affect patients' own referrals and behaviour. Evidence is required to support effective commissioning for the prevention and reduction of unplanned admissions. This may include:

- comparative analysis and modelling of alternative commissioning arrangements
- behavioural studies of relevant general practice and patient attitudes and actions
- impact assessments of different Primary Care Trusts/Practice Based Commissioning and other organisational structures and processes.

3.3 Acute care workload management

Unplanned admissions place an increased burden on the workload of acute care providers. They may attract both financial penalties and incentives and affect formal public health priorities. For clinicians they can distort the effective implementation of, for example, new 'Choose and Book' and Medical Assessment ward arrangements. Their significance is increasingly recognised in central policy statements, as proposals to divert up to 50% of hospital admissions for people with long term conditions illustrate (9). Hospital trusts with a different status may respond differently to unplanned admissions in terms of their business management and user relations. Evidence is required to provide a comprehensive awareness of effective workload management systems in acute care that respond to a legitimate range of corporate organisational objectives. This may include:

- hospital based studies of statistical data capture, analysis and modelling for unplanned admissions and sustainable referral systems
- comparative studies of different business models used by hospital organisations
- stakeholder assessments

3.4 Improvements in demand management that address increases in unplanned admissions

Historically, an increase in unscheduled care, and in particular unplanned acute hospital admissions, has been a vehicle for future growth in resources. The NHS Payment-by-Results financial system has been widely believed to offer incentives to providers to increase such activity. The ongoing growth in rates of unplanned hospital admissions and the wider economic climate for the NHS both suggest that the development of improved approaches to demand management is required. Radical changes from beyond health care have been adopted and adapted recently in similar contexts, as the widespread use of private sector day surgery units to help reduce waiting times has illustrated. Research in this area could include:

- identifying from international sources possible models for the effective management of unscheduled care and, in particular, unplanned admissions, and trialing them in the NHS
- locating and describing the transferable learning from demand management approaches in the private, independent and voluntary sectors

4. Process for proposal selection

The NIHR SDO programme is now seeking outline proposals for primary research in the themes set out above. The duration of the projects will have to be justified and applicants

are reminded that timeliness will be highly valued. Both short (up to 1 year) and medium (up to 3 years) term projects will be considered. The latter will be expected to provide regular interim reports.

The NIHR Service Delivery and Organisation programme is funded by the NIHR, with contributions from NISCHR in Wales. Researchers in England and Wales are eligible to apply for funding under this call. Researchers in Scotland and Northern Ireland should contact their Health Department Research and Development Office and Health and Social Care Research & Development, Public Health Agency respectively if they wish to discuss funding opportunities for this type of research.

Whilst we have not set a maximum cost for projects, value for money will be scrutinised and all costs must be justified. Applicants should be aware that changes of costs between outline and full proposal will have to be fully explained, and we therefore encourage applicants to be as realistic as possible when costing their outline proposals.

Applications for this call will be assessed in two stages. Outline proposals will be checked for eligibility and reviewed by the Priority Areas Panel. The primary criterion against which the Panel assesses outline proposals is that of **NHS need – in other words, whether the proposed research will be useful to research users in the NHS, and is likely to contribute to improving decision making**. It will use four main criteria to make this judgement:

- Relevance of the proposed research set out in this call for proposals
- Relevance of the proposed research to the needs, interests and current and future challenges for the management community in the NHS.
- Likelihood that the proposed research will produce findings which are timely, useful to and capable of application by the management community in the NHS
- Likelihood that the proposed research will promote the greater engagement between the academic research community and the health management community in the NHS, and will encourage development of links between academic institutions and NHS organisations.

Where appropriate successful applicants should demonstrate that their proposals are informed and support the relevant research outlined in 2:1 and 2:2.

Successful outline proposals

Applicants whose proposals are shortlisted will be asked to develop a full proposal for assessment by the SDO Commissioning Board meeting in March 2011. This board's primary concern is the **quality of the proposed research**. It uses two main criteria to make this judgement:

- Scientific rigour and quality of the proposed research, and the expertise and track record of the research team.

- Value for money of the proposed research, taking into account the overall cost and the scale, scope and duration of the work involved.

5. General guidance for applicants

Our main concern is to commission research which is well designed, will be effectively carried out by the research team, and will provide findings which meet the needs of the

NIHR SDO programme and the NHS management and leadership community it serves. In order to achieve this, we encourage applicants to take the following points into account:

- **Theoretical framing and empirical methods.** Issues should be addressed in a way likely to lead to the wide applicability of findings. Applicants should clearly demonstrate links between theoretical and empirical work. Large projects will need various methods, including both qualitative and quantitative approaches matched to study questions and with clear understanding as to how findings from different empirical approaches will be integrated.

- **Research team makeup and expertise**. Projects are likely to use broad teams with significant input from diverse disciplines and a commitment to developing robust inter-disciplinary approaches. Applicants need to show that they will commit appropriate time and effort to the project. The principal applicant should generally be the person who has contributed most to the intellectual and practical development of the proposal, and who will take responsibility for its implementation. The NIHR SDO programme encourages inclusion of an element of research capacity-building.

- **Public involvement**. It is a core concern of the SDO programme that all commissioned projects should pay appropriate attention to the needs and experiences of all relevant stakeholders (including local communities, lay people, service users, carers and minority ethnic communities as well as healthcare practitioners and managers) during the design, execution and communication of the research. Proposed projects should be explicit in communicating how the proposed work has potential implications for service delivery that could lead to enhanced public and community engagement.

- **Research governance**. Applicants should ensure that their proposal complies with the Research Governance Framework. Successful applicants will be required to provide proof of research ethics committee approval for their project, if this is required.

- **Costs and value for money.** Project costs will be carefully scrutinised and must always be well justified. NIHR programmes currently fund Higher Education Institutions (HEI) at a maximum of 80% of Full Economic Cost (except for equipment over £50,000 – 100%). For non-HEI institutions, NIHR may fund 100% of costs. However, the NIHR SDO programme reserves the right to award a grant for less than this maximum and for less than the amount sought by applicants.

6. Dissemination and knowledge mobilisation

Applicants should be able to demonstrate that although the findings should be applicable to the current situation these should also be sustainable beyond a 12 month period, and in outlining their research plans, the applicants should make clear how findings will be communicated, particularly to service audiences.

Applicants should outline plans for conference, seminar and other forms of dissemination to go alongside written communications. The proposed work should be designed and delivered in a way that is helpful to NHS decision makers. Projects lasting more than one year will be expected to deliver interim reports on progress and provisional findings

Applicants will be expected to deliver a full report detailing all the work undertaken and supporting technical appendices (up to a maximum 50,000 words), an abstract and an executive summary (500 words).

7. Application process and timetable

Should you have any questions or require any further clarification please refer to the NETSCC FAQs at http:\\www.sdo.nihr.ac.uk/faqsnetscc.html, if the answer to your question cannot be found please email your query to sdofund@southampton.ac.uk with the reference number (10/1010) and title for the call for proposals as the email header. Applicants should be aware that while every effort will be made to respond to enquiries in a timely fashion, **these should be received at least two weeks before the call closing date.**

The process of commissioning will be in **two stages** and applicants should submit **outline proposals** via the SDO website by **1pm** on **16 September 2010**. No late proposals will be considered. No paper-based only submissions will be considered.

Applicants will be notified of the outcome of their outline application in November 2010.

Shortlisted applicants will be invited to submit a full proposal via the SDO website (a link will be sent to shortlisted applicants). Applicants will be notified of the outcome of their full proposal application in April 2011. Please note that these dates may be subject to change.

References

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