

Photodynamic versus white-light-guided resection of first-diagnosis non-muscle-invasive bladder cancer: PHOTO RCT

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Plain English summary

The PHOTO RCT

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Plain English summary

Around 7500 people are diagnosed with early-stage bladder cancer in the UK each year. Early bladder cancer is contained within the bladder and has not yet invaded the bladder's muscle wall or spread elsewhere in the body. The cancer will return (recur) in around half of people after initial treatment and they have to attend hospital for regular check-ups, with costs to both them and the NHS.

The first step in treating early bladder cancer is surgery to remove the tumour. This surgery is normally performed under white light.

Photodynamic diagnosis is a new technique in which a liquid is put into the patient's bladder before surgery and a blue light is used during the operation. This causes the bladder cancer to fluoresce so that it can be seen more easily by the surgeon.

The Photodynamic versus white-light-guided resection of first diagnosis non-muscle-invasive bladder cancer (PHOTO) trial aimed to find out whether or not using photodynamic diagnosis at initial surgery would reduce how often the cancer recurred and whether or not this could reduce the cost of treating early bladder cancer.

A total of 538 people with early bladder cancer who had a medium to high chance of their cancer returning after treatment were enrolled in the PHOTO trial. They were included in one of two treatment groups, at random: 269 had photodynamic surgery and 269 had standard white-light surgery. People in both groups were monitored regularly for any recurrences, with further treatment as appropriate.

After 3 years, 4 out of 10 people in each group had a recurrence of their bladder cancer. We found no difference between the treatment groups in the number of people with recurrences. We found no evidence of a benefit to patients, and the total costs of photodynamic surgery were higher than those of standard white light. We therefore recommend that it is no longer used in the treatment of this group of patients.

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This report

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