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Title **A Prospective Randomized Comparison of Minor Surgery in Primary & Secondary Care. The Mistic Trial**

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Aim

To determine if GPs and hospital doctors are equally competent to perform various elective minor surgical procedures, in terms of safety, quality, and cost of care.

Conclusions and results

Using surgical quality as the primary outcome, the quality of minor surgery in general practice is not as high as that carried out in hospital, although the difference is not large. Patients are more satisfied if their procedure is performed in primary care, largely because of convenience. However, there are clear deficiencies in GPs' ability to recognize malignant lesions, and there may be differences in completeness of excision when compared with hospital doctors. Patient safety is of paramount importance, and this study does not demonstrate that minor surgery carried out in primary care is safe as it is currently practiced. Several alternative models for providing minor surgery are worthy of consideration, including ones based in primary care that require all excised tissue to be sent for histological examination, or that require further training of GPs. This study's findings suggest that a hospital-based service is more cost effective. It must be concluded that it is unsafe to leave minor surgery in the hands of doctors who have never been trained to do it. The 568 patients recruited (284 primary care, 284 hospitals) were randomized by 82 GPs. In total, 637 skin procedures plus 17 ingrowing toenail procedures were performed (313 primary care, 341 hospitals) by 65 GPs and 60 hospital doctors. Surgical quality was assessed for 273 (87%) primary care and 316 (93%) hospital lesions. Mean visual analogue scale score in hospital was significantly higher than that in primary care (mean difference=5.46 on 100-point scale; 95% CI 0.925 to 9.99), but the clinical importance of the difference was uncertain. Hospital doctors were better at achieving complete excision of malignancies, with a difference that approached statistical significance (7/16 GP versus 15/20 hospital, X^2=3.65, p=0.056). The proportion of patients with postoperative complications was similar in both groups. The mean cost for hospital-based minor surgery was 1222.24 pounds sterling (GBP) and for primary care GBP 449.74. Using postoperative complications as an outcome, both effectiveness and costs of the alternative interventions are uncertain. Using completeness of excision of malignancy as an outcome, hospital minor surgery becomes more cost effective. See Executive Summary link at www.hta.ac.uk/project/1100.asp.

Recommendations

See Executive Summary link at www.hta.ac.uk/project/1100.asp.

Methods

See Executive Summary link at www.hta.ac.uk/project/1100.asp.

Further research/reviews required

Further work is required to determine GPs' management of various skin conditions (eg, potentially life-threatening malignancies), rather than just their recognition of them. Further economic modeling is required to look at the potential costs of training sufficient numbers of GPs and GPs with special interests to meet the demand for minor surgery safely in primary care, and of the alternative of transferring minor surgery to the hospital sector. Different models of provision need thorough testing before widespread introduction.

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