Considering that 86% of staples and 48% of non-absorbable sutures were removed on the ward during hospital stays (Fig 1), it is worth investigating how many patients were kept on the ward purely for the removal of wound closures, thus adding to the cost of treatment and making the bed unavailable.

The use of TSAs would allow patients to go home earlier, reducing the cost per procedure and allowing a higher throughput of patients in acute beds. With hospital stays costing an average of £254 per night (Curtis and Netten, 2006), even small reductions in the duration of stay could have major implications for the cost of surgical care.

The average district general hospital performs around 30,000 surgical procedures a year (NHS Information Centre, 2006). At a cost of £56.61 per patient, the cost of skin closures in these procedures will be around £1,698,300. With around 7.2 million surgical procedures undertaken every year, the cost of closure amounts to £407,592,000 for the NHS in England. Changing to TSAs could save a typical district general hospital around £447,600 per year and the NHS £114.6m per year.

An alternative way of determining the cost-effectiveness of wound closure methods would be to carry out a survey over a longer period of time, following each patient from the surgical closure in theatre to removal or an equivalent endpoint such as acceptable healing. This would take into account factors such as costs associated with problems developing after suture removal and the costs of scar care. However, this would be much more expensive to conduct, and the amount of information needed from each respondent could reduce the return rate.

Further studies would also be useful to determine the costs and usage patterns of skin closure techniques outside the types of surgery analysed in this survey, for example in cardiothoracic and plastic surgery. The absence of some types of surgery from our questionnaire means that extrapolations from our literature review may not be fully justified.

CONCLUSION

TSAs and STASs are as effective and safe as non-absorbable sutures, clips or staples for skin closure after surgery. Increasing the use of TSAs and STASs could reduce NHS costs with no loss of clinical effectiveness or safety.

The use of TSAs and STASs could also reduce the amount of staff time needed in the closure and management of surgical wounds, freeing staff to perform other duties and helping divert funds to other areas of healthcare.

REFERENCES


NHS Information Centre (2006) Hospital Episode Statistics Online. tinyurl.com/HES-online


