

discharges onto the surface with minimal subcutaneous contamination essentially forming a controlled open LIF mucus fistula. The midline wound remains intact with no disruption. In view of this, a closed cutaneous LIF mucus fistula is our technique of choice after emergency subtotal colectomy in patients with ulcerative colitis.

#### Reference

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### An aid to removal of cement during revision elbow replacement

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#### BACKGROUND

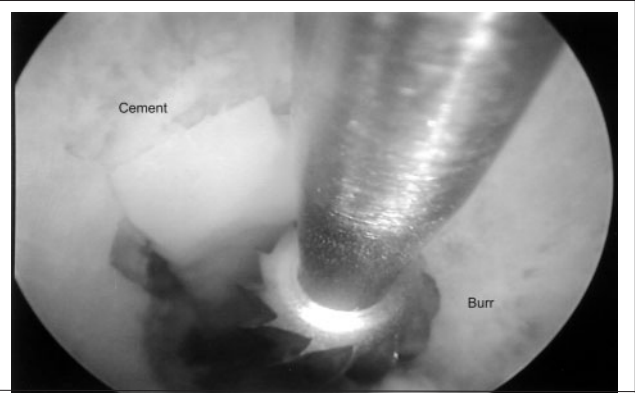
Primary total elbow replacement (TER) survival analysis has demonstrated a higher prosthesis revision percentage for all causes, 13% at 5 years, than total hip replacement.<sup>1</sup> This means that although fewer TERs are undertaken, there is still a heavy revision burden. The reported complications for revision TER include fracture during cement removal, related to difficulty with access because of the narrow medullary canal and often secondary to poor bone stock because of osteolysis.<sup>2</sup> This technical note presents a novel aid for easier cement removal from the humerus and ulna which has been used in 10 patients undergoing revision TER.

#### TECHNIQUE

Patient positioning, preparation, approach and prosthesis removal was undertaken using the surgeon's standard technique. The visible loose cement was removed from the humerus and ulna. A standard 30° 5-mm arthroscope (Linvatec, Largo, FL, USA) was then introduced into the medullary canal. Under direct vision, the cement plug was breached distally using a high speed burr (5-mm head and 8-cm long). The remaining cement was burred loose from the bone. The boundary between cortical bone and cement is easily visualised during the burring procedure (Fig. 1). Remaining cement can be removed using a combination of irrigation and an arthroscopic grabber under direct vision. Once the cement had been removed, the revision was completed routinely.

#### DISCUSSION

Revision elbow replacement is a complex procedure associated with high rates of complications.<sup>2</sup> The technique described above



**Figure 1** Intra-operative arthroscopic photograph of cement burring in the medullary canal of the ulna.

has proved, in a limited number of patients, to be a safe and useful method of cement removal.

#### References

1. Little CP, Graham AJ, Carr AJ. Total elbow arthroplasty: a systemic review of the literature in the English language up until the end of 2003. *J Bone Joint Surg Br* 2005; **87**: 437–44.
2. Kaminen S, Morrey BF. Proximal ulnar reconstruction with strut allograft in revision total elbow arthroplasty. *J Bone Joint Surg Am* 2004; **86**: 1223–9.

### Technical tips

#### A simple adjunct to lavage of open fractures

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Lavage of open fractures is crucial and proven to reduce the risk of secondary infection. Irrigation leads to spillage of fluid, which soaks surgical drapes, increasing the chances of wound contamination. Gowns worn by the surgical and nursing staff get wet, increasing exposure of potentially contaminated body fluids from the patient. We report the use of a tray, at the Coventry and Warwickshire Hospital. The limb is placed on the tray, excess irrigant drains through the holes and collects in the underlying compartment and can be discarded via a sucker. In our experience, this reduces the spillage of excess irrigant. This tray was manufactured locally, at the hospital workshop, and has been in use for over 30 years (unfortunately not available commercially). We