

happening requires us to address each of the following points individually:

1. I again advocate the employment of independent occupational health staff whose involvement must be seen to make the process straightforward and not disruptive.
2. An on-going education programme focused on the small, but real, risk of transmission and the less obvious benefits of reporting is essential.
3. Universal precautions to protect against contaminations must be taken in every case.

I do, however, acknowledge that in the real world, even with the best efforts, needle stick injuries remain inevitable. A safe and credible system, perhaps nationally agreed as Mr McCann suggests, of protecting surgeons and patients is required to deal effectively with these events. I leave it open to debate then, to determine if a prior knowledge of a patient's BBV status (obtained during a pre-admission assessment) is of use to a surgeon either before surgery is commenced or immediately after a contamination event occurs.

References

1. Kennedy R, McCann PA, Southgate C. Surgeons and the risk of blood borne viral infections; a study of attitudes and practice. *Br J Surg* 2007; **94** (Suppl 3): 1–31.
2. Kennedy R, Kelly S, Gonsalves S, McCann PA. *Barriers to the Reporting and Management of Needlestick injuries among Surgeons*. The Royal College of Surgeons of Edinburgh, Audit Symposium, March 2007.

COMMENT ON

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AG Pfleiderer, N Ahmad, MR Draper, K Vrotsou, WK Smith. The timing of calcium measurements in helping to predict temporary and permanent hypocalcaemia in patients having completion and total thyroidectomies. *Ann R Coll Surg Engl* 2009; **91**: 140–6

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Hypocalcaemia following total thyroidectomy

RAJEEV PARAMESWARAN

CORRESPONDENCE TO

Rajeev Parameswaran, E: malumols@live.co.uk

I recognise along with the authors that hypocalcaemia is an accepted complication of thyroid surgery, and monitoring for hypocalcaemia in the postoperative period is essential. However, I feel that the rate of hypocalcaemia quoted by Pfleiderer *et al.* is high, particularly, the temporary hypocalcaemia (43%). I believe that, in clinical practice, the symptomatic hypoparathyroidism rate is of most significance. Pfleiderer *et al.* quote this as 24%. We performed 79 total

thyroidectomies (excluding the completion surgery) over the last 4 years (2004–2008); only five (6%) patients had temporary hypocalcaemia and one (1.2%) patient had permanent hypocalcaemia. The BAETS audit data quote a rate of 30% with temporary hypocalcaemia and 7% with permanent damage necessitating treatment.

The authors have suggested that identifying the parathyroid glands is a risk factor for hypocalcaemia. In their study, hypocalcaemia has been attributed to various causes, including increased diathermy use, especially in toxic goitres. The standard approach to prevent parathyroid injury and subsequent hypocalcaemia during thyroid surgery is to look for, and preserve, the superior parathyroid glands, and staying close to the thyroid gland to avoid and, therefore, preserve the inferior parathyroid glands. Our low rates of hypocalcaemia are, we believe, due to the fact that we routinely identify the parathyroid glands during surgery. We also use the harmonic scalpel in total thyroidectomies, which minimises bleeding and injury to the parathyroid glands. Where the parathyroid glands have been devascularised, parathyroid gland autotransplantation is also used in our unit in an attempt to prevent permanent hypoparathyroidism.

AUTHORS' RESPONSE

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ANDREW PFLEIDERER

Department of Otolaryngology, Edith Cavell Hospital, Peterborough, UK

CORRESPONDENCE TO

Andrew Pfleiderer, Consultant Otolaryngologist, Edith Cavell Hospital, Bretton Gate, Peterborough PE3 9GZ, UK
E: agpfleiderer@doctors.org.uk

The first paragraph of the letter suggests that our rates for temporary and permanent hypocalcaemia are high but both are in keeping with the BAETS audit data; it would, therefore, appear that rates quoted by Mr Parameswaran are much lower than one might expect following total thyroidectomy and wonder whether cases of subtotal and near total thyroidectomy have been included in their series which biased the results.

With reference to the second paragraph, we acknowledge that the standard teaching for parathyroid preservation in thyroid surgery has been the active identification of the glands themselves but the evidence from our study shown in the attached figure very strongly suggests that this may not, in fact, be the case. In our series of 162 complete total thyroidectomies, we found that the incidence of both temporary and permanent hypocalcaemia was directly related to the number of parathyroids identified, that is the