SCOTTISH EXECUTIVE

Health Department

Medical Directors (ENT Consultants)
Chief Executives

Dear Colleague

TONSILLECTOMY AUDIT, SURGICAL TECHNIQUES AND BLEEDING

Enclosed with this letter you will find interim guidance from NICE and a letter from Professor Richard Ramsden, President of BAO-HNS. This may well attract some media coverage. The guidance is based on the National ProspectiveTonsillectomy Audit run by the Clinical Effectiveness Unit of the Royal College of Surgeons of England. The guidance contains warnings concerning the use of diathermy and coblation in adenotonsillar surgery. These warnings stem from the **early** results of the England and Northern Ireland tonsil audit showing a significant increase in post surgical bleeding associated with diathermy and the specific technique of coblation. There are concerns raised about single use equipment.

I enclose an anonymised table from the Scottish National Tonsillectomy Audit that has been sent to the ENT audit co-ordinator of each ENT unit in Scotland. At present we are validating and matching the results between the "returned tonsil audit complications" and the figures gathered through different sources by ISD. There is variation in practice that needs to be confirmed and explored. In contrast to the findings of the England and Northern Ireland audit, there is no evidence in Scotland that single use instruments (diathermy excluded) increase post surgical bleeding.

At present there is no reliable measure of the quantity or amount of diathermy used in an individual tonsil bed. Laboratory experiments with diathermy equipment are required to advance this area.

From the Chief Medical Officer

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For action

For information

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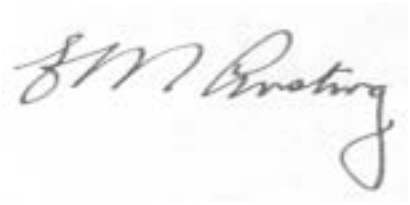
In a letter of guidance issued on 15 February 2002, I advised Scottish ENT surgeons to "exercise special vigilance" in the use of bipolar diathermy forceps. The guidance from NICE reinforces this advice. Scottish ENT surgeons should continue to use single use equipment and to be sparing and careful in the use of surgical diathermy. The validated results of the Scottish Tonsil audit organised by the Scottish Otolaryngology Society, funded by and supported by NHS QIS will be available shortly.

Yours sincerely



DR E M ARMSTRONG

24 March 2004

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Dear Colleague,

Interim guidance on the use of diathermy in tonsillectomy

The National Institute for Clinical Excellence has been asked by the Chief Medical Officers of England, Scotland and Northern Ireland to review urgently the use of diathermy in tonsillectomy. This follows an interim analysis of the results of the National Prospective Tonsillectomy Audit which was carried out in England and Northern Ireland. The results suggest that there are higher risks of secondary haemorrhage requiring readmission and return to theatre after tonsillectomy using diathermy techniques or coblation, compared with techniques which use no diathermy either for dissection or haemostasis (the 'cold steel' technique). These preliminary results are summarised in an accompanying letter from Professor Richard Ramsden, Chairman of the Audit Steering Group, and have been considered by the Institute's Interventional Procedures Advisory Committee.

We will issue definitive guidance on the use of diathermy in tonsillectomy when our review, which will take account of the Scottish National Tonsillectomy Audit and the evaluation of disposable instruments carried out in Wales, is complete. We have already issued guidance on tonsillectomy by coblation and are preparing guidance on the use of the harmonic scalpel.

We have also been asked to issue definitive guidance on the best technique for reducing any possible risks of variant Creutzfeldt-Jakob Disease transmission commensurate with minimising the surgical complications of tonsillectomy. Data from the national audits will be used to inform this guidance.

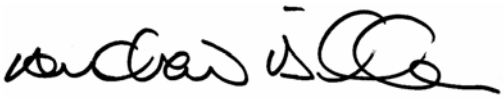
Until further guidance is published, all surgeons should consider how best to minimise their use of diathermy during tonsillectomy, particularly when diathermy is being used for both dissection and haemostasis. The risk may be particularly high for monopolar diathermy and surgeons should consider discontinuing use of this method. The risk may also be higher with currently available disposable diathermy equipment for tonsillectomy and, again, surgeons should consider discontinuing their use.

The National Prospective Tonsillectomy Audit should continue. The Institute recommends that all patients having tonsillectomy should be included in this audit. Surgeons should give particular attention to recording details of diathermy used in each operation.

At our request, the British Association of Otorhinolaryngologists – Head and Neck Surgeons is producing training standards. Formal training is particularly important for all surgeons starting to undertake coblation tonsillectomy.

Expressing an interest in tonsillectomy on the NICE website (www.nice.org.uk/ip) will enable you to receive the definitive guidance and to take part in discussion on its content.

Yours sincerely,



Andrew Dillon
Chief Executive

Professor Bruce Campbell, MS, FRCP, FRCS
Chairman, Interventional Procedures Advisory Committee

ENT·UK
BRITISH ASSOCIATION OF OTORHINOLARYNGOLOGISTS
HEAD & NECK SURGEONS

Important message from Professor Richard Ramsden, President Elect, ENT UK (The British Association of Otorhinolaryngologists – Head & Neck Surgeons), Chairman of Steering Group of the National Prospective Tonsillectomy Audit.

The National Prospective Tonsillectomy Audit began collecting data in July 2003. The great majority of hospitals in England and Northern Ireland, both in the NHS and private sector, have signed up to the Audit. This high level of participation is a credit to the specialty and gives the Audit great statistical power. We have collected data on nearly 15,000 operations. We aim to collect data for a further 7 months and we expect to obtain details about around 30,000 operations in total.

We have analysed the data on all tonsillectomies carried out prior to 23 February 2004 submitted to the Audit's database. We are now in a position to share with you the patterns that are emerging about tonsillectomy technique as a risk factor for postoperative bleeding. We do this because the evidence is so strong that it would be wrong not to inform you at this time. The following is a summary of results that will be published in full in the very near future.

Tonsillectomy technique

The results for five popular tonsillectomy techniques can be summarised as follows:

1. **Cold steel tonsillectomy** using ties and /or packs was the technique with by far the lowest risk of postoperative haemorrhage (1.3%) and return to theatre (1.0%).
2. **Cold steel dissection with (bipolar or monopolar) diathermy haemostasis** had a haemorrhage rate of 2.9%, and 1.7% of the patients returned to theatre.
3. **Bipolar (forceps or scissors) diathermy** for dissection and haemostasis had a haemorrhage rate of 3.9%, and 2.4% of the patients returned to theatre.
4. **Monopolar diathermy** for dissection and haemostasis had a haemorrhage rate of 6.1%, and 4.0% of the patients returned to theatre.
5. **Coblation** for dissection and haemostasis had a haemorrhage rate of 4.4%, and 3.1% of the patients returned to theatre.

These results demonstrate that the haemorrhage rates with "hot" techniques are at least double the rate with traditional cold steel using only ties and / or pack for haemostasis. All these results are statistically significant (p-value always < 0.01).

Disposable instruments

Another important observation is that haemorrhage rates are significantly higher with disposable than with reuseable instruments (5.2% compared to 3.2%; p = 0.002).

Grade of surgeon

Patients operated on by trainees are more likely to suffer from postoperative haemorrhage than those operated on by consultants and non-training grades (4.6% compared to 2.7%; p < 0.0001).

Conclusions

1. "Hot" techniques should not be stopped on the basis of the current evidence. However, the Audit found particularly high postoperative haemorrhage rate with monopolar diathermy, and the use of this technique should be carefully considered.
2. The extent to which diathermy is used in a patient seems to be linked to the amount of thermal damage to surrounding tissues. This indicates that diathermy should always be used with caution, and the power setting, frequency and duration of diathermy use should be carefully controlled.
3. The training in ENT may need to be more stringent than in the past. We should emphasise that excessive use of diathermy whilst readily controlling bleeding during surgery may lead to increased postoperative haemorrhage. The technique of tying blood vessels should be taught to all trainees.
4. Coblation may be a particularly difficult technique to learn, and that must be reflected in the way this technique is taught.

We are very grateful for your participation so far and strongly value your continued involvement in this important Audit. We need to get a better understanding of the mechanisms underlying these increased postoperative haemorrhage rates with diathermy and coblation.

Richard Ramsden

Richard Ramsden, March 2004

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Charity No: 213352

Scottish Otolaryngology Society
Tonsil and Adenoid Surgery Audit
Summary Report
April 2002 – March 2003
n = 166

Trust	All Tonsil & Adenoid Operations	Returned to theatre during initial stay	All readmissions	Returned to theatre during readmission	All Problem Patients	%	ISD Figures for Readmissions Due to Bleeds	%	ISD Figures for All Readmissions	%
A	530	7	7	1	15	2.8%	14	2.6%	20	3.8%
B	96	0	0	0	0	0.0%	0	0.0%	0	0.0%
C	474	0	19	0	19	4.0%	25	5.3%	35	7.4%
D	51	0	1	1	1	2.0%	4	7.8%	5	9.8%
E	461	1	15	3	14	3.0%	39	8.5%	43	9.3%
F	629	1	16	1	19	3.0%	49	7.8%	63	10.0%
G	180	0	3	0	3	1.7%	3	1.7%	8	4.4%
H	484	1	12	3	13	2.7%	31	6.4%	52	10.7%
I	310	0	7	1	7	2.3%	10	3.2%	16	5.2%
J	539	1	11	1	12	2.2%	42	7.8%	53	9.8%
K	675	0	5	0	5	0.7%	47	7.0%	58	8.6%
L	18	0	0	0	0	0.0%	0	0.0%	0	0.0%
M	498	4	12	1	17	3.4%	8	1.6%	13	2.6%
N	277	0	4	0	6	2.2%	5	1.8%	6	2.2%
O	413	5	16	3	20	4.8%	34	8.2%	38	9.2%
P	174	2	7	2	9	5.2%	9	5.2%	10	5.7%
Q	4	0	0	0	0	0.0%	0	0.0%	0	0.0%
R	349	0	2	0	2	0.6%	11	3.2%	13	3.7%
S	38	0	0	0	0	0.0%	6	15.8%	7	18.4%
	6200	**22**	**137**	**17**	**162**	**2.6%**	**337**	**5.4%**	**440**	**7.1%**