A gastrograffin swallow was arranged, by which stage the patient was struggling to swallow his saliva. Gastromiro was used and the procedure identified almost complete obstruction at approximately the distal one-third of the oesophagus. Gastromiro is a water-soluble contrast agent and was chosen because it is easier to swallow than barium, and is non-toxic. An urgent OGD identified retained food and fluid in the oesophagus. Linear furrows and concentric ring constrictions were noted in the oesophagus at OGD. Multiple random biopsies were taken and had been found to be diffusely infiltrated with eosinophils, consistent with a diagnosis of eosinophilic oesophagitis.

This article and subsequent case have significantly increased my awareness of this condition and brought it to the forefront of my mind when considering differential diagnoses of food boluses.

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Liquid nitrogen for cryotherapy

The West Lothian Community Health and Care Partnership along with the local pharmacy department have unilaterally decided that they will no longer supply practices with liquid nitrogen for cryotherapy. The liquid nitrogen had been supplied for over 20 years to our practice. They cite potential health and safety risks in the transport and use of liquid nitrogen. This seems another example of health and safety being used inappropriately.

They say 'there have been a number of recent incidents regarding the spillage and evaporation of liquid nitrogen during the transportation process and local storage at health centres,' but do not detail the incidents.

They allude to 'well documented hazards associated with liquid nitrogen including oxygen deficiency (spillage and venting/leaking dewars), asphyxia, damage to

lungs, and cold burns, confined space exacerbation, oxygen enrichment, and ice plugs'.

Apparently 'The NHS Lothian policy prohibits transportation by car and states it is to be done only by a suitable transport vehicle. This is a vehicle with cab separate to the cab, that is, a box van. The storage facility for the flasks requires further upgrading to meet requirements of the policy and procedure — and as a result of a recent audit in relation to carriage of dangerous goods. Following the recent incidents, transport have reviewed their system and highlighted that local controls are not adequate'.

They also state 'the current facilities in our health centres and treatment rooms do not comply with the ventilation requirements — estimated cost of £1200 for ventilation to be installed for each room and appropriate alarm system. There is no standard operational procedure in place for reception of liquid nitrogen in the health centres'.

The volume that practices receive was around 500 ml, given the volume of a reception area or a consulting room is probably about 32 000 l (4m x 4m x 3m), then the volume of liquid nitrogen if a gas = $700 \times 0.5 \text{ l} = 350 \text{ l}$. Air is approximately 80% nitrogen therefore the volume of nitrogen in the room prior to any nitrogen spill $80\% \times 32\,000 \text{ l} = 25\,600$. After the spill of 500 ml of liquid nitrogen this increases the volume to 25 950 l, which is an increase in nitrogen concentration of less than 1%.

The whole scenario seems bizarre, liquid nitrogen historically is the chosen modality of most dermatologists for cryotherapy. Other freezing agents exist but may not be as efficient.

The main driver seems to be cost, however practices can obtain Histofreezer® 150 ml dimethyl ether/propane/iso butane aerosol on stock order in Scotland. This costs approximately £50 for 50 applications. Histofreezer reaches a temperature of -55°C within 15 seconds. There seem to be very few papers on its use, however one from Madrid¹ suggests it may be useful and I would be interested to hear of other GPs' experiences.

However I feel the withdrawal of liquid nitrogen will result in more referrals to dermatologists.

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Confirming death in general practice

Kelso *et al* from Dumfries & Galloway raise the issue of 'confirming death in general practice'.¹ This is an area that is inadequately addressed in undergraduate and postgraduate training. Similarly the certification process following confirmation of death is similarly neglected. There is often a difference between confirming death at a patient's home and in a hospital as a hospital doctor is working in an acute setting where death may be sudden, with the need for a decision whether or not resuscitation is required and appropriate. Furthermore, in general practice, nurses are being trained in some parts of the UK to confirm death out-of-hours.

Every few months there is a global report in a newspaper of a patient 'waking up' in a mortuary where death has been mistakenly confirmed in circumstances of conditions that can induce coma. This led to my writing an editorial in the *BMJ* in 1996 on the subject of 'diagnosing death' and similarly concluded that this is a subject rarely mentioned in modern textbooks, although much is written about pronouncing brain death. In this editorial I provided guidelines for practitioners, as for many this process has fallen into a 'commonplace formality'.^{2,3} In my days as a hospital doctor and a GP there was often considerable doubt about the actual moment of death, particularly for those witnessing the process of dying, as the warmth of the body and the long unnerving intervals between respiratory gasps can be misleading.

The authors ask how the process may be improved. Perhaps consideration could be made for this to be a mandatory Direct Observation of Procedural Skills (DOPS) for both Foundation Doctors and Associates in Training for General Practice based on the 2008 Academy of Royal Colleges code of practice for confirmation of death.⁴

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