

fragments on breaking in the manner described. Certainly the base, the thickest part, does fragment when a glass breaks, but this is not so with the thin side wall, which either remains intact or breaks into pieces with "razor blade" edges.

Interestingly, the French claim only that their glass is three times stronger than a normal, stress free glass; we dispute this figure, let alone Shepherd and colleagues' claim that it is six times stronger. Breaking a used tempered glass does not present a problem to an assailant, and the same jagged shards characteristic of normal glassware on breakage are produced.

The authors do not mention the instability of tempered glass, presumably because they are ignorant of the process entailed.² The technique of tempering glassware with a thick cross section—for example, a car windscreen—is well known, but the tempering of thin walled drinking ware is fraught with dangers, which the authors overlook. No manufacturer produces tempered tankards, for a good reason: safe tempering calls for uniformity of wall thickness throughout the body of the product.¹

Finally, from their experiments we fail to see how the authors conclude that tempered glassware is indistinguishable from annealed glassware to the drinking public. This statement is based on opinion; all the evidence suggests that the French product tends to discolour with use.

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- 1 Shepherd JP, Kidner G, Huggett R. Impact resistance of drinking glasses. *BMJ* 1991;303:1330. (23 November.)
- 2 Porfido N. Is your tempered ware really shock resistant? *Glass Industry* 1991 June:18.
- 3 De Grave R. Thermal toughening of glass by air quenching. *Glass* 1985 Nov:423-4.

AUTHORS' REPLY.—We are surprised that there is no objective evidence in D Grimes's letter or the articles he cites for the assertions he makes. He does not report any steps that his company has taken to make bar glasses less likely to break or less likely to injure people when they do break. Safety is an important issue: 43 patients with facial injury due to glass were recently identified over two weekends in five accident and emergency departments¹ and 208 hand injuries due to glass were identified during three months by members of the British Society for Surgery of the Hand.²

Although the term "glassing" implies deliberate breaking of a glass before its use as a weapon, most of the patients in our survey reported that unbroken glasses had simply been thrown or had been picked up and thrust whole at them. On impact the glasses had fractured, causing injury. It is on the basis of this finding that we believe that making glasses more resistant to impact is likely to prevent injury. Tempering also increases the tendency for glass to break at right angles to its surface, giving rise to relatively blunt edged fragments.

In relation to durability and weakening "within hours," research showed that two designs of tumblers, when tempered, survived up to 25 times longer in a busy office than non-tempered tumblers of identical design that were exposed to the same number of cycles of use.³ Glass manufacturers such as Ravenhead who have not developed the production of toughened drinking glasses have also claimed that toughened glasses can cause injury when they disintegrate spontaneously. None of the patients in our study reported injury in this way.

We remain convinced of the need for a code of practice in relation to the safety of glass. At present there is nothing to prevent manufacturers producing thinner and thinner glasses and, indeed, every commercial incentive to make glasses as friable as possible. The fact that in the United Kingdom the licensed victuallers' trade gets through 100 million

glasses annually attests to the limited life of most pub glasses.

Tempering will never completely eliminate injuries due to glass, but it substantially reduces the risk of breakage. As De Grave states in the conclusion of a paper cited by Grimes, "In fact, toughening has provided an opportunity for the production of high resistance tumblers, dishes, plates, bowls, casseroles, etc, of great variety of shapes, and colours which are now normally used by everyone."⁴

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- 1 Shepherd JP, Price M, Shenfine P. Glass abuse and urban licensed premises. *J R Soc Med* 1990;83:276-7.
- 2 Evans DM. Hand injuries due to glass. *J Hand Surg [Br]* 1987;123:284.
- 3 Nakamura H. Life of tumblers. In: Kunugi M, Tashiro M, Saga N, eds. *Tenth international congress on glass*. Tokyo: Ceramic Society of Japan, 1974:10.42-9.
- 4 De Grave R. Thermal toughening of glass by air quenching. *Glass* 1985 Nov:423-4.

Acute angle closure glaucoma associated with nebulised ipratropium bromide and salbutamol

SIR.—Peter Shah and colleagues report that nebulised ipratropium bromide and salbutamol may, if allowed into the eyes, rarely lead to acute angle closure glaucoma in susceptible patients.¹ Such reports are not unexpected, given the potentially additive effects of each drug on the eye. What is important, however, is that the eyes are protected by a well fitting face mask or the addition of a T piece extension to the nebuliser mouthpiece and, in susceptible patients, goggles.

In view of the documented benefits of the combination of ipratropium and a β_2 agonist given by nebulisation in patients with moderate to severe acute and chronic airways obstruction,^{2,4} ocular protection is to be preferred to advice not to use these valuable medicines in combination.

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- 1 Shah P, Dhurjon L, Metcalfe T, Gibson JM. Acute angle closure glaucoma associated with nebulised ipratropium bromide and salbutamol. *BMJ* 1992;304:40-1. (4 January.)
- 2 Rebeck AS, Chapman KR, Abboud R, Pare PD, Kreisman H, Wolkove N, et al. Nebulised anticholinergic and sympathomimetic treatment of asthma and chronic obstructive airways disease in the emergency room. *Am J Med* 1987;82:59-64.
- 3 Brown IG, Chan CS, Kelly CA, Dent AG, Zimmerman PV. Assessment of the clinical usefulness of nebulised ipratropium bromide in patients with chronic airflow limitation. *Thorax* 1984;39:272-6.
- 4 O'Driscoll BR, Taylor RJ, Horsley MG, Chambers DK, Bernstein A. Nebulised salbutamol with and without ipratropium bromide in acute airflow obstruction. *Lancet* 1989;ii:1418-20.

Diazoxide no longer marketed

SIR.—Diazoxide is used primarily to manage patients with hypoglycaemia resulting from overproduction of insulin. It has a unique and invaluable role. Simple oral treatment controls symptoms in most patients. It can be used for short term control of hypoglycaemia during investigation or long term management when surgery is either inappropriate or has failed. No comparable drug is available.

We were considerably alarmed when we dis-

covered that the manufacturers had made a commercial decision to stop marketing diazoxide tablets. When we asked how such a decision could be made without consultation we were informed that consultation with endocrinologists had taken place. We have not yet been able to locate those consulted.

We invite other would be users of the drug to write to the suppliers, Allen and Hanburys Limited, Stockley Park West, Uxbridge, Middlesex UB11 1BT, requesting that the drug once more be supplied as tablets.

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We sent this letter to the manufacturers of diazoxide, who replied as follows:

SIR.—The production of medicines is subject to increasingly stringent specifications on safety and quality. This is entirely appropriate but can also cause difficulties for manufacturers, particularly when a drug is used by only a few patients, requiring infrequent, low volume production. It was for these reasons that we decided to stop marketing diazoxide (Eudemine) tablets on 9 August last year.

We were aware that there would be a few people who had taken diazoxide for some years and would require continued supply. We therefore guaranteed to make diazoxide powder available on a named patient basis within 24 hours of request, or even sooner in emergencies. The decision to supply the powder free reflects our concern for the patients and certainly does not support Sonksen and colleagues' view that this was a commercial decision.

We continue to seek an alternative supplier and are in discussion with several other manufacturers who may be able to meet demand. In the mean time we will continue to supply diazoxide powder on request: we have responded to 103 requests for named patient supply since 9 August last year.

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Bureaucratic record?

SIR.—Only 17 copies of a curriculum vitae requested by St George's Hospital?¹ Chickenfeed. The *Lancet* of 6 October 1923 carried an advertisement for an honorary assistant surgeon at Cardiff Royal Infirmary, indicating that "Fifty copies of application and testimonials should be forwarded to . . . Leonard D Rea, secretary."² As usual, Wales leads the way.

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- 1 Barry M. Bureaucratic record? *BMJ* 1992;304:123. (11 January.)
- 2 Advertisement of post at Cardiff Royal Infirmary, ear, nose, and throat department. *Lancet* 1923;105:210.