blood straight from a donor and therefore insufficiently tested. "Warm blood" is demanded not only for neonatal exchange transfusion but for practically all cases of emergency transfusion. Its advocates prove uniformly unable to refer to controlled studies suggesting an improved outcome in recipients of "warm blood" compared with those given fully tested stored blood. Before more and more clinicians switch over to this dubious pre-first-world-war procedure, apparently for irrational reasons, careful prospective investigations in this field are urgently needed.

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Cockles of the heart

SIR,—The origin of the expression "warming the cockles of the heart" (12 November, p 1271) is simple: the left atrium or cockle is in close relationship to the oesophagus and when hot liquid passes down the gullet the cockle is warmed. The expression is derived from a common-sense interpretation of anatomy. Using the plural and including the right atrium is allowable poetic licence; cockle (singular) sounds odd.

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Indomethacin in pleurisy

SIR,—Dr K P Goldman's assertion that there is no previous report on the use of indomethacin for relieving pleuritic pain (19 November, p 1353) is inaccurate. Without undertaking an exhaustive literature search I can cite at least two clinical reports documenting successful therapy of acute pleuritic pain with indomethacin.

One report¹ indicates that the drug be administered in substantial amounts, 100 mg every two hours for 4-6 doses. Relief is obtained shortly, usually after the first few days. The drug can then be given in the usual maintenance dosage of 25-50 mg four times a day. Except for minor cases of nausea and euphoria no serious adverse reactions were noted with this regimen even after two years of use.

The second report² shows that in a double-blind study satisfactory analgesia was experienced by 84% of 51 patients with acute, severe pleuritic chest pain who received a single suppository containing 100 mg of indomethacin compared with 35% given placebo. Relief of pain started within 30 min in 52% and within 60 min in 85% of indomethacin responders, reaching a maximal effect within 90 min in 67% of the patients. Significant improvements were noted in respect of mechanical lung function, respiratory rate, and the ability to cough effectively in patients experiencing analgesia due to indomethacin. Four of the 25 patients receiving the drug experienced mild to moderate dizziness and two other patients complained of mild nausea.

According to a study by Halt *et al*³ therapeutic serum levels of indomethacin are reached sooner after rectal than after oral administration of the same dose. In addition, rectal administration of indomethacin has the advantage of not causing gastrointestinal distress and is a useful alternative when oral use is contraindicated in patients with dyspepsia or peptic ulceration.⁴

Although the exact mechanism of indomethacin-induced analgesia in pleuritic pain is not known, the effect might be related to the drug's powerful anti-inflammatory properties,⁵ which allow it to interfere in some manner with pain-producing chemical mediators.⁷

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- ⁶ Roszkowski, A P, *et al*, *Journal of Pharmacology and Experimental Therapeutics*, 1971, **179**, 114.
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Cooking the turkey

SIR,—Scrutator's indignation (7 January, p 57) about the Departmental advice on the cooking of turkeys is misplaced. In 20 years' experience of the control of infectious disease by far the great majority of outbreaks of food poisoning that I have dealt with have been the result of badly prepared, cooked, or served large turkeys, and it is clear that many catering managers still need to be reminded of good practice in this field.

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Initiation of once-daily pindolol treatment

SIR,—An increasing number of patients with moderate hypertension are now treated with beta-blockers in a once-daily regimen. In Sweden pindolol, metoprolol, and propranolol are now officially approved for administration in this way. Usually the optimum dose of the beta-blocker is reached by a gradual titration.^{1 2} For practical reasons it is of course an advantage if the optimum dose can be given once daily from the start of the treatment. For pindolol several studies have indicated the optimum once-daily dose to be 10-15 mg.³ Against this background a study has been performed with the aim of comparing the tolerability of 15 mg pindolol given once daily and 5 mg administered three times daily.

Twenty ambulatory patients, 15 men and five women of mean age 42, with moderate hypertension, previously untreated, entered the study. The criterion for acceptance was a diastolic blood pressure of ≥ 105 mm Hg on at least two different occasions maintained during an initial placebo period of four weeks. The blood pressure was measured in the morning, always before the first tablet intake

that day. The patients were divided at random into two different groups, group A being given 15 mg once daily and group B receiving 5 mg three times daily. Double-blind conditions were obtained by using blister-packages.

The mean supine blood pressure and heart rate at the end of the placebo period and after four and 12 weeks of active treatment for the two groups are shown in the table below. There was a significant reduction of the blood pressure after four weeks' active treatment for both groups. There was no difference in the pressure reduction between the groups after either four or 12 weeks' therapy. In three cases side effects were recorded. One woman taking 5 mg thrice daily discontinued treatment after one week owing to fatigue and vertigo; in another case the patient complained of sleep disturbances but continued therapy. One patient on 15 mg once daily noticed vertigo two hours after the tablet intake.

In summary, a gradual titration of pindolol in the once-daily regimen seems unnecessary and the optimum dose can be given directly without increasing the risk of side effects. Thus a simpler regimen can be obtained which may help to keep the patient on the treatment.

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Aid to drug compliance

SIR,—It is well known that patients, even when well motivated, often fail to take their prescribed drugs correctly. Obviously this is most likely to occur when aged patients are on multiple drugs; however, even a single course of an antibiotic may be taken incorrectly.

All drugs could be packed in "calendar-packs" with one tablet to be pushed out each marked day for four weeks and a space on each pack to mark, say, morning, noon, and evening. Then if the dose were two tablets thrice daily six such packs would give one month's supply. Some drugs are already available in this way—for example, contraceptive pills, certain iron preparations, Lasix+K, and Tenormin. Doubtless manufacturers are financially inhibited from changing to such packaging. However, in many countries it is already a legal requirement for drugs to be dispensed in an "original pack"; it would be possible for the Department of Health and Social Security to allow drug manufacturers to retain extra profits to cover this once-and-for-all increase in expenditure. This would result in a worthwhile increase in drug efficacy and safety.

A useful and simple interim measure would be to issue a small card with all medicines, including syrups and ointments. This would have

Effects of pindolol treatment 15 mg once daily (group A) and 5 mg thrice daily (group B) on mean blood pressure and pulse rate

	Group A		Group B	
	Blood pressure (mm Hg)	Pulse rate (beats/min)	Blood pressure (mm Hg)	Pulse rate (beats/min)
After 4 weeks' placebo	164/107	74	174/108	76
After 4 weeks' active treatment	147/93	69	149/94	70
After 12 weeks' active treatment	141/85	71	147/88	69