Figure 2 Recommended method of trimming the appendix..

Figure 3 Suggested modification to standard method of trimming the appendix.

We recommend that both ends of the organ be bisected longitudinally and that both halves of both ends be blocked and examined histologically (fig 3).

The base of the appendix can be identified histologically by the surgeon's clamp marks. If the base contains a carcinoid tumour, using our modification, the proximity of the tumour to the excision margin can be accurately assessed.

Appendectomy has been shown to be the correct treatment for patients with carcinoid tumours of the appendix, provided that the tumour is less than 2 cm in size and the caecal wall is not affected. A right hemicolectomy is advocated in cases of caecal wall disease.¹ By using our modification, which involves minimal extra work for the pathology department, we are able to report more positively on the adequacy of excision of these tumours, thereby facilitating subsequent surgical management.

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A large bowel fixation board

Large bowel specimens which are poorly fixed pose difficulties in locating adequate numbers of lymph nodes and in accurate measurement of the tumour's radial margin clearance in the rectum.

Figure (A) Fixation board: top view; (B) dividing strut.

Current recommendations include pinning out the specimen on a cork board for 24 hours then unpinning and float fixing for 24 hours.¹ The board we describe eliminates the need for the second step.

The board is constructed from polyvinyl chloride, 4 mm thick, drilled at 5 mm intervals with 5 mm diameter holes. The polyvinyl chloride sheet is then bolted to a piece of 6 mm cork using 10 mm nylon spacing washers (figs 1A & B). Specimens are received fresh and pinned to the board using standard green hypodermic needles through the holes in the sheet, into the cork.

Most specimens are fixed adequately in 24 hours using this method, and the board is inexpensive (£25), easy to use and to clean without disassembly, but may be taken apart to replace the cork.

Many anecdotal and ingenious methods are available to overcome this problem, involving small pieces of cork, foam or metal, but our board's convenience ensures its use by the busiest of "cut up" personnel.

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Dr Sheffield comments:

I welcome any method or tool which encourages pathologists to prepare, fix, and dissect colonic specimens properly. Crick and Warren's fixation board seems to achieve this aim. The reason I use a further 24 hours in formalin is to ensure good fixation of the pericolic fat. In my experience even in free-floated specimens this is not always achieved with overnight fixation.

Pressure on laboratories to speed up

reporting times should be resisted if it entails dissecting poorly prepared specimens. The key to good microscopic diagnosis is in the macroscopic examination of properly fixed specimens. Most resected bowels are the patient's definitive treatment and "delay" of a report to allow correct fixation rarely affects acute postoperative management.

Method for improving lymph node retrieval from gastrectomy specimens

The ACP broadsheet 133 by Scott *et al* outlined the general procedures used in their department for gross examination of the stomach.¹ We agree with the methods they describe but wish to suggest an alternative approach for dealing with gastrectomy specimens which gives high lymph node yields.

This method is a modification of the Japanese Research Society for Gastric Cancer guidelines, as outlined in a paper in the *Japanese Journal of Surgery*.² We recently started using it at the request of one of our surgeons who has a major interest in surgery for gastric cancer.

A summary of the method we use is as follows. The specimens are received fresh, unopened. The anatomical location of the various lymph node groups related to major arteries is identified on the gross fresh specimen (figure) and the relevant piece(s) of fat/omentum containing each lymph node group is then dissected off the specimen. This is easy when the specimen is fresh and each piece(s) representing a specific lymph node group is then placed in a separate labelled pot with 10% formalin for fixation. When all the fat/omentum has been removed the stomach is opened along the greater curve, pinned to a cork board, and floated upside down in a formalin bath until the next day. As all the fat has been removed these specimens fix very well with overnight fixation.

After fixation the specimen is photographed. The relevant measurements and blocks from the stomach are taken as described by Scott *et al*.¹ Each piece of fat/omentum is then finely sliced using a sharp knife, and also palpated. All lymph nodes found are sampled and identified as belonging to a specific anatomical lymph node group. A form is issued with each report giving details of the number of lymph nodes found in each group and the number in each group with metastatic disease

Total number of lymph nodes recovered and number with metastasis from each case

	Type of total gastrectomy																	
	R1									R2						R3		
No of lymph nodes recovered	11	29	16	27	13	12	23	30	31	18	24	29	24	45	53	37	14	37
No with metastasis	0	0	8	0	2	0	0	9	19	16	5	26	0	10	2	1	2	12

together with a summary of the number of lymph nodes involved in the N₁, N₂ and N₃ groups.

In our department this method is currently used for all radical gastrectomies because we believe this increases the yield of lymph nodes. The table shows the number of lymph nodes retrieved and the number with metastasis from each of the cases received to date.

The advantages to this system of handling are as follows:

(1) There is a high yield of lymph nodes as each piece of fat/omentum is small, no longer attached to the stomach, is easy to handle, and can therefore be quickly and thoroughly sliced.

(2) The number and anatomical location of all nodes recovered can be accurately detailed to regional areas. The anatomical identification is done at the initial examination when the fat/omentum containing the lymph node groups is separated. This is important with lymph node groups along vascular pedicles—for example, left gastric artery—as the anatomy of these nodes may alter when fixed attached to the main specimen, especially after it has been opened.

(3) Once all the fat and omentum has been removed from the stomach, the stomach fixes quicker and is easier to handle and take blocks from as there is no fat.

(4) This method can be modified to deal with any partial or total gastrectomy for malignancy in order to maximise lymph node yield. Please note that if there is suspected serosal disease the removal of fat and omentum will not affect assessment of this unless it is exceptionally vigorous.

In summary, we feel this is a valuable and worthwhile procedure which improves lymph node recovery and gives detailed anatomical location of all lymph nodes removed. With a little practice the initial dissection in the fresh state is relatively easy to perform and the total time involved for complete dissection is comparable to conventional methods.

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Xanthogranulomatous gastritis: an entity or a secondary phenomenon?

In their paper, Guarino *et al* seem to imply that the "xanthogranulomatous gastritis" associated with their case of xanthogranulomatous cholecystitis (XGC) is an independent entity.¹ Albeit with the same cause, they postulate that this is related to "a peculiar composition of bile," damaging the mucosa of both the stomach and the gall bladder. They state that they are unaware of similar causes of an association between XGC and xanthogranulomatous inflammation in the bowel wall, but believe that "it is conceivable that deepening of the xanthogranulomatous process in the gall bladder and adhesions in the stomach may result in a transmural involvement of the gastric wall".

It is now accepted that xanthogranulomatous pyelonephritis (XPN), a condition analogous to XGC, can produce deep sinuses or fistulae both within and beyond the abdominal cavity to sites such as the small or large bowel, the diaphragm, the lung or skin,²⁻⁴ and that xanthogranulomatous inflammation may be present at these distant sites.^{3,4} Similarly, in a study of only 13 cases of XGC, Roberts and Parsons found three cases of fistulae originating in the gall bladders⁵; two of these extended to the duodenum (close to the stomach, which was not affected) and one to the skin.⁴

Sinus or fistula formation is therefore quite uncommon, although a frequently unrecognised, complication of xanthogranulomatous inflammation in the gall bladder, the kidney and, even the appendix.⁵ In my experience nodules of xanthogranulomatous tissue, separated by bands of fibrous tissue, can often be found along the track of the extension of this inflammation as it "points" to other organs. (Guarino *et al* describe the gall bladder in their case to be "adherent to the gastric antrum by means of firm tissue"). I am convinced, therefore, that the gastric xanthogranulomatous inflammation recorded by Guarino *et al* is the result of extension of primary XGC, and as such should not be designated as the proposed separate entity of "xanthogranulomatous gastritis". Despite this, to my knowledge, extension of XGC into the stomach has not been recorded before.

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KEY TO LYMPH NODE GROUPS

1. - right cardiac
2. - left cardiac
3. - lesser curve
- 4a. - greater curve - right
- 4b. - " " - left
5. - suprapyloric
6. - infrapyloric
7. - left gastric
8. - common hepatic artery
9. - coeliac artery
10. - splenic hilum
11. - splenic artery

Diagrammatic representation of the lymph node groups along major arteries.