Quality of patient information in the acute surgical admission: a prospective audit

A prospective audit was carried out to assess patient understanding and recall of information in the acute surgical setting through the use of information leaflets. The authors found that provision of written information can enhance the process of obtaining informed consent, reduce patient anxiety and improve patient satisfaction.

Introduction

Research shows that understanding of disease management in surgical patients is poor and greater awareness of patients' information needs is required (Muslow et al, 2011). The quality of patients' experiences is also determined by their involvement in their diagnosis and treatment.

A substantial proportion of patients search the internet for further information, with the majority of these using search engines (Tamhankar et al, 2009). A Google search for 'appendicectomy' (or 'appendectomy') and 'cholecystectomy' in June 2012 returned 2.03 million and 2.35 million results respectively. However, the prioritisation of websites by these search engines is both confusing and subject to commercial bias (Tamhankar et al, 2009). The information available on websites found on a Google search is often inaccurate, suboptimal or difficult to comprehend (Soot et al, 1999; Berland et al, 2001; Gordon et al, 2001; Kunst et al, 2002), leading to worried and confused patients (Tamhankar et al, 2009).

The problem is exaggerated further in the acute setting when patients need emergency or same-admission surgery. Lack of in-hospital sources of information, combined with rushed or poor explanations by staff, can increase patient anxiety and confusion. Patients have requested better access to information (Bunker, 1983) and studies have shown that good information can reduce patient anxiety (George et al, 1983) and improve medical outcomes (Audit Commission, 1993). The quality of information given to the surgical patient is therefore an essential aspect of good clinical care.

The authors conducted a prospective audit of patients presenting acutely to a district general hospital to investigate the role of written patient information in the care of acute surgical patients. This audit assessed the impact of introducing patient information leaflets upon patient knowledge, understanding and satisfaction. The authors also assessed whether patients recalled the information they had been given, and this article highlights specific aspects of the acute surgical patient's pathway where understanding was lacking.

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Methods

Sixty-seven patients undergoing same-admission appendicectomy, cholecystectomy or abscess incision and drainage were included in this audit. These three operations were chosen because they occur relatively commonly in the acute surgical setting. Patients were excluded from the audit only where language barrier was a problem to understanding the questionnaire itself.

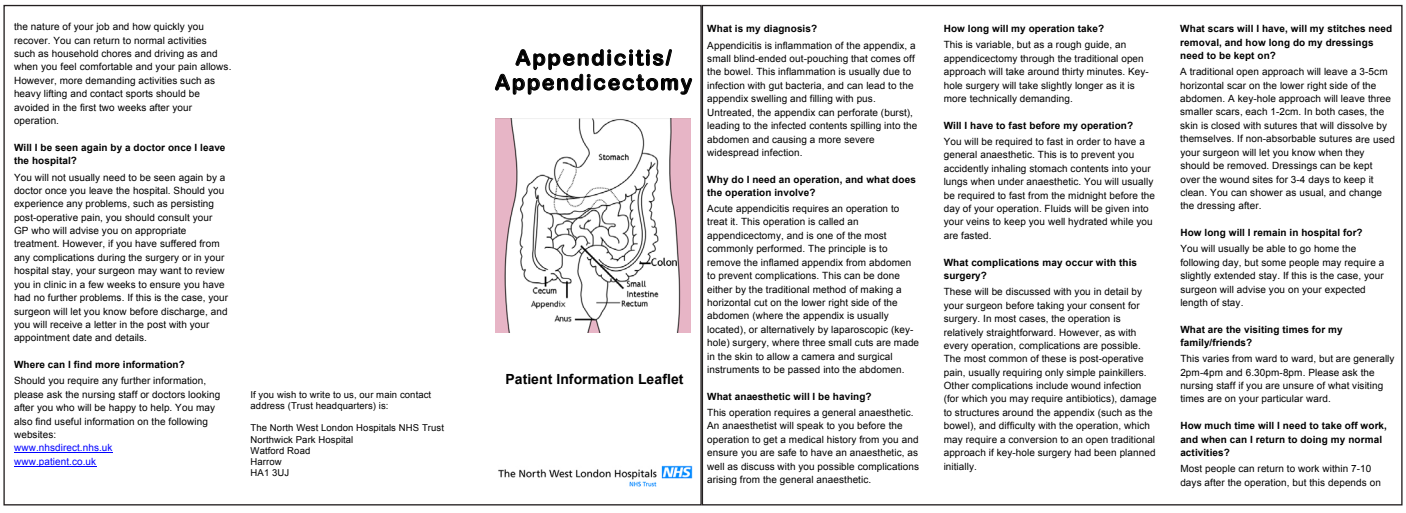
Patients were given pre-developed questionnaires that tested their knowledge of information regarding different perioperative aspects of their proposed operation. Questions relating to preoperative (e.g. fasting before general anaesthesia), operative (e.g. type of anaesthesia, length of operation, complications) and postoperative aspects of care (hospital stay, scars, follow up) were included. These areas were used as objective measures to test patient understanding and recall of information. Patients were given a 'don't know' option for each question to limit bias secondary to guesswork. The questionnaire also asked patients whether or not each question related to information they felt was important.

In the first audit loop, 36 patients were given questionnaires after they had been consented for their respective operations, so that patients should have been given all the required information and had a chance to ask further questions. They were not provided with any written information to supplement their understanding. Pilot information leaflets for the respective operations were then produced after the first audit loop, with input from three general surgery consultants, junior and senior doctors and nurses, patient communications department and data collected from the first loop (*Figure 1*).

In the second loop, 31 patients were given the written information leaflets relevant to their operation once a decision regarding operative management had been made, but before consenting took place, and again given the tick-box questionnaire to complete. They were asked to fill in the questionnaire after they had been consented, including rating the usefulness of the leaflets on a scale of 1 to 10. In both loops patients were given time to complete the questionnaire unassisted. Patient questions regarding the audit and data collection were addressed by three junior doctors working within the department (MS, JL, ZS).

Results

With the use of patient information leaflets, the proportion of patients correctly understanding their diagnosis and operation increased from 69% to 87%. In the first loop, 11 patients (31%) did not know any potential complications of their operation, while only 13 patients (36%) could list more than two (*Table 1*), despite 88% saying they felt that this was important information. In the second loop, 18



the nature of your job and how quickly you recover. You can return to normal activities such as household chores and driving as and when you feel comfortable and your pain allows. However, more demanding activities such as heavy lifting and contact sports should be avoided in the first two weeks after your operation.

Will I be seen again by a doctor once I leave the hospital?

You will not usually need to be seen again by a doctor once you leave the hospital. Should you experience any problems, such as persisting post-operative pain, you should consult your GP who will advise you on appropriate treatment. However, if you have suffered from any complications during the surgery or in your hospital stay, your surgeon may want to review you in clinic in a few weeks to ensure you have had no further problems. If this is the case, your surgeon will let you know before discharge, and you will receive a letter in the post with your appointment date and details.

Where can I find more information?

Should you require any further information, please ask the nursing staff or doctors looking after you who will be happy to help. You may also find useful information on the following websites:
www.nhsdirect.nhs.uk
www.patient.co.uk

If you wish to write to us, our main contact address (Trust headquarters) is:

The North West London Hospitals NHS Trust
Northwick Park Hospital
Watford Road
Harrow
HA1 3UJ

Appendicitis/ Appendicectomy

Stomach
Colon
Small Intestine
Cecum
Appendix
Rectum
Anus

Patient Information Leaflet

The North West London Hospitals NHS NHS Trust

What is my diagnosis?

Appendicitis is inflammation of the appendix, a small blind-ended out-pouching that comes off the bowel. This inflammation is usually due to infection with gut bacteria, and can lead to the appendix swelling and filling with pus. Untreated, the appendix can perforate (burst), leading to the infected contents spilling into the abdomen and causing a more severe widespread infection.

Why do I need an operation, and what does the operation involve?

Acute appendicitis requires an operation to treat it. This operation is called an appendicectomy, and is one of the most commonly performed. The principle is to remove the inflamed appendix from abdomen to prevent complications. This can be done either by the traditional method of making a horizontal cut on the lower right side of the abdomen (where the appendix is usually located), or alternatively by laparoscopic (key-hole) surgery, where three small cuts are made in the skin to allow a camera and surgical instruments to be passed into the abdomen.

What anaesthetic will I be having?

This operation requires a general anaesthetic. An anaesthetist will speak to you before the operation to get a medical history from you and ensure you are safe to have an anaesthetic, as well as discuss with you possible complications arising from the general anaesthetic.

How long will my operation take?

This is variable, but as a rough guide, an appendicectomy through the traditional open approach will take around thirty minutes. Key-hole surgery will take slightly longer as it is more technically demanding.

Will I have to fast before my operation?

You will be required to fast in order to have a general anaesthetic. This is to prevent you accidently inhaling stomach contents into your lungs when under anaesthetic. You will usually be required to fast from the midnight before the day of your operation. Fluids will be given into your veins to keep you well hydrated while you are fasted.

What complications may occur with this surgery?

These will be discussed with you in detail by your surgeon before taking your consent for surgery. In most cases, the operation is relatively straightforward. However, as with every operation, complications are possible. The most common of these is post-operative pain, usually requiring only simple painkillers. Other complications include wound infection (for which you may require antibiotics), damage to structures around the appendix (such as the bowel), and difficulty with the operation, which may require a conversion to an open traditional approach if key-hole surgery had been planned initially.

What scars will I have, will my stitches need removal, and how long do my dressings need to be kept on?

A traditional open approach will leave a 3-5cm horizontal scar on the lower right side of the abdomen. A key-hole approach will leave three smaller scars, each 1-2cm. In both cases, the skin is closed with sutures that will dissolve by themselves. If non-absorbable sutures are used your surgeon will let you know when they should be removed. Dressings can be kept over the wound sites for 3-4 days to keep it clean. You can shower as usual, and change the dressing after.

How long will I remain in hospital for?

You will usually be able to go home the following day, but some people may require a slightly extended stay. If this is the case, your surgeon will advise you on your expected length of stay.

What are the visiting times for my family/friends?

This varies from ward to ward, but are generally 2pm-4pm and 6.30pm-8pm. Please ask the nursing staff if you are unsure of what visiting times are on your particular ward.

How much time will I need to take off work, and when can I return to doing my normal activities?

Most people can return to work within 7-10 days after the operation, but this depends on

Figure 1. The leaflet given to patients undergoing appendicectomy.

patients (58%) listed three or more complications, and only two patients (6%) could not list any complications (*Table 2*). Without the leaflets, only 11 patients (31%) knew where they could go for further information, with six patients stating 'GP' and five patients stating websites, e.g. NHS Direct. Of those who responded, 95% felt that this was important information. With the introduction of the leaflets, 68% of patients could name a source of further information.

Tables 1 and *2* summarize the findings from each of the audit cycles, and *Figure 2* compares the correct responses between the two cycles. The majority of patients felt that the leaflets were useful, with 28 out of 31 patients in the second loop rating them 7/10 or higher. The mean rating was 8.03.

Discussion

The results from the first audit loop emphasized the lack of patient understanding of disease management, and highlighted the need for further relevant information to be given to acute surgical patients over and above that provided during the process of obtaining consent. Patients requiring same-admission surgery have very little time to take on board and understand large amounts of information. Studies have shown anxiety results in poorer patient outcomes (Henney and Rakhra, 2011) and therefore it is important that patients do not become apprehensive when told they require an urgent operation, especially if they had not perceived this to be a potential option.

The Royal College of Surgeons of England (2008) states in its guidelines for consent that the surgeon must 'provide

Table 1. Responses to questionnaire by patients in first audit loop (*n*=36) (no supplementary information)

	Patient response			Information important?¶	
	Correct	Incorrect	Don't know/no answer	Yes (%)	No (%)
Type of anaesthetic	24	0	12	85	15
Operation length	11	3	22	81	19
Fasting beforehand	24	5	7	96	4
Visiting times	15	1	20	86	14
Hospital stay	20	1	15	96	4
Scars*	14	0	7	87	13
Dressings	5	0	31	100	0
Normal activities†	4	5	27	85	15
Follow-up	2	8	26	100	0
Further information‡	11	-	25	95	5

* only those undergoing appendicectomy or cholecystectomy were asked about scars. † return to normal activities postoperatively. ‡ patients who knew where they could go to seek further information, e.g. patient.co.uk, NHS Direct websites. ¶ Percentage of patients who responded given – blank responses not considered

Table 2. Responses to questionnaire by patients in second audit loop (*n*=31) (patients given information leaflet in addition to verbal information at time of consent)

	Patient response		
	Correct	Incorrect	Don't know/ no answer
Type of anaesthetic	27	2	2
Operation length	19	5	7
Fasting beforehand	21	8	2
Visiting times	26	2	3
Hospital stay	27	1	3
Scars*	17	0	0
Dressings	25	4	2
Normal activities†	21	7	3
Follow-up	22	5	4
Further information‡	21	–	10

* only those undergoing appendicectomy or cholecystectomy were asked about scars. † return to normal activities postoperatively. ‡ patients who knew where they could go to seek further information, e.g. patient.co.uk, NHS Direct websites

time for patients to discuss the proposed procedure and provide an opportunity for the patient to make a fully informed and unharassed decision to agree to the treatment suggested'. Unfortunately, with time often lacking in the acute surgical environment, patients may agree with the surgeon's advice and proceed to consent despite not being fully informed nor understanding their operation.

Patient anxiety particularly in the acute setting may also result in very little information being processed or retained by the patient, despite clear and adequate explanations by the consenting surgeon. This is reflected in that only two patients in the first loop correctly answered more than 75% of the questions they were asked, 22% of patients could not recall either their diagnosis or operation, and 31% of patients did not know any potential complication of their operation – despite this being a prerequisite for consent.

As the majority of patients do not have a medical background, they may require repeated or alternatively-phrased explanations. The routine provision of written information can therefore be invaluable in these scenarios, especially if provided before consent, giving patients the opportunity to take information on board and subsequently ask any questions to the surgeon at the time of consenting. This would facilitate the process of informed consent, and make the consenting process an opportunity for the patient to consolidate knowledge and understanding. As shown in the second audit loop, the provision of operation-specific written information improves patient recall and understanding in all aspects questioned.

Patient responses to free-text sections in the first loop further highlighted a large variation in understanding. An example of a good response was a patient who answered: 'I have an inflamed appendix that needs to be removed by key-hole surgery'. An example of a response indicative of poor understanding was in a patient having an abscess drained, who answered: 'I think it is to cut out my bowel' when asked about his operation.

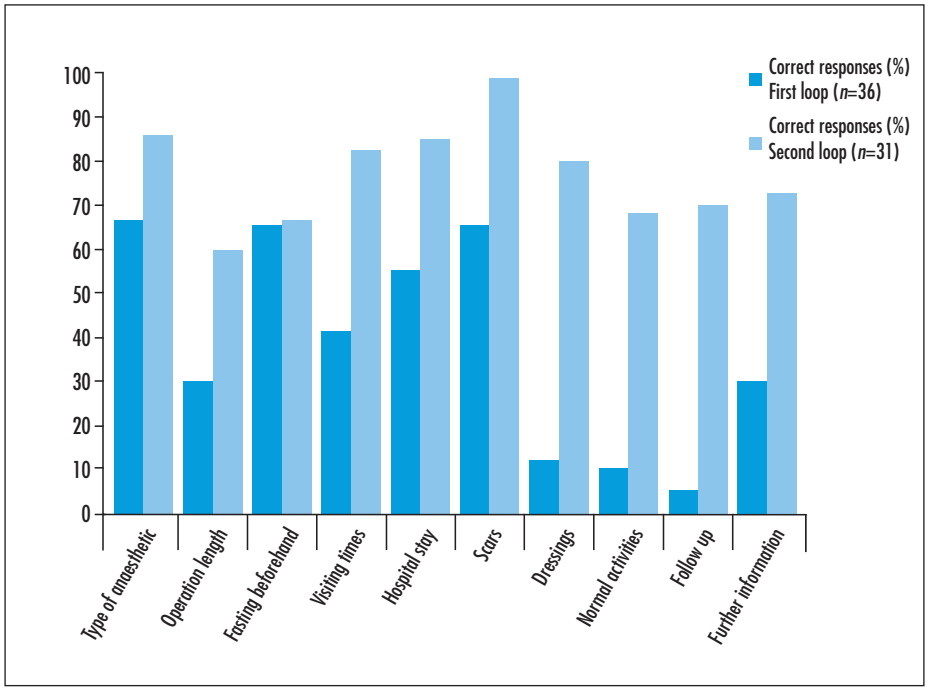
Areas that were correctly answered by a greater proportion, even without the leaflets, included type of anaesthetic and preoperative fasting. This may be because patients are kept 'nil by mouth' from the midnight before their operation, and may therefore have already been fasting by the time of their consent and subsequent questioning.

This study highlights the need for increased availability of accurate, relevant patient information. Two studies have also shown written information leaflets to be useful for improving patient recall of procedure and complications (Siau et al, 2010; Henney and Rakhra, 2011), thus facilitating informed consent. Many elective surgical procedures have good quality leaflets available in outpatient clinic setting that can be given to patients well in advance of their surgery, allowing them time to consider and comprehend the major aspects of their operation. However, this type of information is severely lacking for acute surgical admissions, where patients have much less time to consider important aspects of their management. Provision of such information not only ensures valid consent, but may also improve the overall patient experience in the care pathway.

Conclusions

The routine provision of written information improves patient recall and understanding of surgical procedures, particularly in the acute surgical setting where patients have little time and resources to fully comprehend their diagnosis and operation. This may enhance informed consent, reduce patient anxiety, and improve patient satisfaction in the care they receive. While only three common general surgical emergencies were considered in this study, the principles are likely to be applicable to other acute surgical interventions, including other surgical subspecialties such as urology, vascular surgery, and trauma and orthopaedics. BJHM

Figure 2. Comparison of correct responses between the two audit loops.



LEARNING POINTS

- In the acute surgical setting, patients requiring surgery often do not fully comprehend their diagnosis or operation.
- Even with informed consent, patient understanding and recall of information in this setting is poor.
- Provision of written information can enhance verbal discussions occurring at the time of informed consent.
- This can increase patient understanding, reduce anxiety, and improve satisfaction in the care patients receive.

Conflict of interest: none.

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