Surgeons’ attitudes to some aspects of day case surgery

D S G Sloan, J D Watson

Accepted 26 February 1986

SUMMARY
The level of day case surgery is much lower in Northern Ireland than in England. A questionnaire was sent to all 55 consultant general surgeons in Northern Ireland to assess attitudes to this form of care and 51 (93%) replied. They were asked about the suitability of five procedures for day surgery. The three minor procedures of vasectomy, cystoscopy and gastroscopy were regarded as suitable or very suitable by 50 (98% of those who replied), 48 (94%) and 48 (94%) respectively. For the two intermediate procedures, 25 (49%) regarded the repair of inguinal hernia as suitable for day case surgery and 22 (43%) ligation of varicose veins. When asked about eight factors limiting their use of day surgery for inguinal hernia repair, the two most frequently rated as important were ‘home conditions’ and ‘level of provision of domiciliary care’ (both by 44 (86%) of the surgeons). Of factors which might promote their use of day surgery for this operation the two most important were ‘more efficient use of health service resources’ (71%) and the ‘ability to convalesce at home’ (67%). The problem of under-reporting of day cases and the importance of accurate statistics are considered.

INTRODUCTION
In 1913 Fullerton, working in the Royal Belfast Hospital for Sick Children (then in Queen Street), was an early pioneer of day case surgery.1 Since then, this form of care has not been greatly developed in Northern Ireland. The present decade has seen some renewed interest and developments starting with the opening of the day surgery unit in the Massereene Hospital in 1980.

Some 22% of all operations and procedures in England were treated as day cases in 1982.2 There was no comparable data for Northern Ireland until the recent introduction of the Hospital Activity Analysis (HAA) ‘Day case notification form’.

The well established Hospital Statistical Return (HSR) recorded day cases (in which day case operations are subsumed) as totalling 14,385 for all specialities in 1984 (DHSS Statistics & Research Branch). In that year 4,910 day case operations were reported through HAA, representing 2.2% of all operations performed in Northern Ireland (DHSS Statistics & Research Branch). While it is

Area Department of Community Medicine, Northern Health and Social Services Board (Northern Ireland).
D S G Sloan, MB, BCh, FFARCS, MSc, MFCM, Senior Registrar.
J D Watson, MB, BCh, DipSocMed, MFCM, Chief Administrative Medical Officer.
Correspondence to: Dr D Sloan, Specialist in Community Medicine, Southern Derbyshire Health Authority, Boden House, Main Centre, Derby, DE1 2PH.
accepted that under-reporting of day cases occurs, it seems unlikely that it should account for anything like the tenfold difference between England and Northern Ireland.

Whatever the true discrepancy, the Department of Health and Social Services (NI) maintains that there is substantial scope to increase the number of day case operations in Northern Ireland. It has been estimated that half of all patients operated on could be treated as day cases. One operation of particular interest in relation to day care is the repair of inguinal hernia. It is the commonest operation undertaken in adult males in England, and the condition contributes significantly to waiting lists as more serious conditions and emergencies take precedence. The feasibility of treating 'good risk' patients for this operation as day cases has been reported by many researchers. Most convincing are the results of several randomised controlled clinical trials which show no statistically significant difference in the complication rate compared with in-patient care. Only 3.3% of inguinal hernia repairs were treated on a day case basis in England in 1982. In Northern Ireland only 21 cases of inguinal hernia repair were reported through the HAA day case system in 1984.

This study was carried out to discover the attitudes of consultant general surgeons to day case surgery in general, and also what factors most influenced them for and against treating inguinal hernia repair as a day case procedure.

**METHOD**

All 55 consultant general surgeons in Northern Ireland were sent a short postal questionnaire. The questions had been formulated after a review of the literature and a pre-test which consisted of structured interviews with eight consultant surgeons. The first question asked about the suitability of five procedures in 'good risk' patients. Three of these were 'minor' and often treated on a day care basis. The other two, repair of inguinal hernia and ligation of varicose veins, were of an intermediate nature and responses here would be of special interest.

Two questions specifically related to repair of inguinal hernia. The surgeons were asked to assess the importance of eight different factors in limiting their use of day case treatment for this procedure. Conversely the third question asked about the importance of eight other factors which might promote the use of day care. The categories of response were of varying degrees of positive and negative with a space to include 'no opinion'. Question 4 asked whether they wished to see an increase, decrease or no change in the level of day case surgery.

**RESULTS**

Fifty-one of the 55 general surgeons returned completed questionnaires, a 93% response rate. Because of the small numbers involved, certain categories of response, eg. 'suitable' and 'very suitable', are amalgamated in the tables for clarity.

In response to question 1 the great majority regarded the three 'minor' procedures as being suitable (or very suitable) for day care. (Table I). Vasectomy was rated suitable by 50 (98%) of surgeons, and 48 (94%) rated both cystoscopy and gastroscopy as suitable for day care treatment. Responses as to the suitability of the two intermediate operations were different: 25 (49%) of the surgeons regarded inguinal hernia as suitable (or very suitable), while only 22 (43%) regarded ligation of varicose veins as suitable (or very suitable) for day care.
treatment. The difference was more marked when only those who had expressed an opinion were considered, with a clear majority regarding inguinal hernia repair as suitable for day care.

**Table I**

*Surgeons' opinions of the suitability of five operations for treatment as day cases. (Amalgamated categories)*

| Operation                  | Very unsuitable or unsuitable | Suitable or very suitable | No opinion or missing information |
|----------------------------|-------------------------------|----------------------------|-----------------------------------|
| Cystoscopy                 | 1 (1.9%)                      | 48 (94.2%)                 | 2 (3.9%)                          |
| Inguinal hernia repair     | 20 (39.1%)                    | 25 (49.0%)                 | 6 (11.9%)                         |
| Gastroscopy                | 1 (1.9%)                      | 48 (94.2%)                 | 2 (3.9%)                          |
| Vasectomy                  | 1 (1.9%)                      | 50 (98.1%)                 | 0 (0.0%)                          |
| Ligation of varicose veins | 24 (47.1%)                    | 22 (43.1%)                 | 5 (9.8%)                          |

Table II refers to the results of question 2 on the importance of certain factors limiting day case treatment of inguinal hernia repair. Only 13 (25%) regarded the 'incidence of medium and long term complications' as important and 18 (35%) regarded both the 'incidence of immediate complications' and 'lack of theatre provision' as being important limiting factors. All the remaining factors were regarded as important by over half the surgeons. 'Patients' negative attitudes' were thought to be important by 33 (65%) while 34 and 35 surgeons (66.6% and 68.7%) regarded 'organisation and communications problems' and 'post-operative pain' respectively as important limiting factors. The factors most frequently cited as limiting were 'level of provision of domiciliary care' and 'home conditions', each of which was regarded as important by 44 (86%).

**Table II**

*The surgeons' opinions of the importance of eight factors in limiting their use of day case treatment for the repair of inguinal hernia. (Amalgamated categories)*

| Factors                                         | Very unimportant or unimportant | Important or very important | No opinion or missing information |
|-------------------------------------------------|---------------------------------|-----------------------------|-----------------------------------|
| Incidence of immediate complications            | 25 (50.0%)                      | 18 (34.3%)                  | 8 (15.7%)                         |
| Organisation and communication problems         | 10 (19.7%)                      | 34 (66.6%)                  | 7 (13.7%)                         |
| Post-operative pain                             | 12 (23.5%)                      | 35 (68.7%)                  | 4 (7.8%)                          |
| Lack of theatre time                            | 24 (47.1%)                      | 18 (35.3%)                  | 9 (17.6%)                         |
| Patients' negative attitudes                    | 7 (13.7%)                       | 33 (64.7%)                  | 11 (21.6%)                        |
| Incidence of medium and long term complications | 29 (56.9%)                      | 13 (25.4%)                  | 9 (17.7%)                         |
| Level of provision of domiciliary care          | 2 (3.9%)                        | 44 (86.3%)                  | 5 (9.8%)                          |
| Home conditions for convalescence               | 2 (3.9%)                        | 44 (86.3%)                  | 5 (9.8%)                          |

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Table III shows the answers to question 3 on the importance of some factors in promoting the use of day care for inguinal hernia repair. The factor which would have stimulated most respondents, 36 (71%), to use day care was 'more efficient use of health service resources'. Thirty-four (67%) regarded the 'ability to convalesce at home' as important. Other factors which would play a major role in promoting day surgery were 'more bed days available for the seriously ill' and 'pressure on beds'. Just over half, 26 (51%), rated both 'reduced waiting times' and 'promotion of integration between hospital and community issues' as important.

Only 24 (47%) cited 'less disruption for family' as important and only 10 (20%) regarded 'sooner return to work' as an important factor in promoting day care for inguinal hernia repair.

Answers to the fourth question showed that a small majority, 27 (53%), were in favour of an increase in day surgery, 21 (41%) wanted no change and no surgeon wished to see it decrease.

**Table III**

*The surgeons' opinions of the importance of eight factors in promoting their use of day case treatment for inguinal hernia repair. (Amalgamated categories)*

| Factors                                         | Very unimportant or unimportant | Important or very important | No opinion or missing information |
|-------------------------------------------------|--------------------------------|----------------------------|----------------------------------|
| Ability to convalesce at home                    | 7 (13.7%)                      | 34 (66.7%)                  | 10 (19.6%)                       |
| Less disruption for families                     | 12 (23.5%)                     | 24 (47.1%)                  | 15 (29.4%)                       |
| More efficient use of health service resources   | 5 (9.7%)                       | 36 (70.7%)                  | 10 (19.6%)                       |
| Sooner return to work                            | 18 (34.4%)                     | 10 (19.6%)                  | 28 (45.0%)                       |
| Reduced waiting time                             | 11 (21.5%)                     | 26 (51.0%)                  | 14 (27.5%)                       |
| Promotion of integration between hospital and community services | 9 (17.6%)                     | 26 (51.0%)                  | 16 (31.4%)                       |
| Pressure for beds                                | 10 (19.6%)                     | 32 (62.8%)                  | 9 (17.6%)                        |
| More bed days available for seriously ill patients | 8 (15.6%)                     | 33 (64.8%)                  | 10 (19.6%)                       |

**DISCUSSION**

The high response rate was a notable achievement in itself. We do not know of any surveys or reported response rates of general surgeons, and informed opinion was pessimistic about the response. The results demonstrate the common phenomenon of reported attitudes differing widely from actual practice. While nearly half of the surgeons judged the repair of inguinal hernia as suitable for day case treatment, very few such operations are so treated. The factors which most limited the use of day care for this condition were thought to be subjective patient factors (including pain) and wider community factors. With the partial exception of post-operative pain, all these factors are out of the surgeon's hands. It may well be that his concern is well founded and it is not good practice to

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submit patients to inadequately relieved pain or poor care and conditions at home. Alternatively a surgeon can be seen as unwilling to submit patients to day surgery as it involves care outside his immediate control, the quality of which he cannot be certain. The organisation of domiciliary care is outside a surgeon's direct remit and the optimal co-ordination of care for day cases may not be seen as his responsibility. A third, more cynical view might be that some of these attitudes may reflect the discouragement of, or apathy towards a policy which involves much effort and which relatively generous bed provision has made unnecessary. By consciously or unconsciously blaming factors outside the surgeon's control the matter can be dismissed. The results may reflect a mixture of such attitudes, varying with each individual surgeon.

It is encouraging to find that most surgeons recognised day surgery as a means of improving the efficiency of the service and this would tend to influence them in favour of the practice. Why then does day surgery appear to be practised much less commonly in Northern Ireland? The relative provision of (acute) hospital services and the use of these is of some interest. Northern Ireland has proportionally about twice the number of general surgical beds, general surgeons and surgical admissions as England (Table IV).

**Table IV**

| General surgical provision and use of facilities 1983 |
|-----------------------------------------------|
| Available beds per 1,000 population | Northern Ireland | England | Scotland | Mersey RHA |
| Throughput per bed | 34.0 | 38.6 | 33.7 | 37.3 |
| % bed occupancy | 75.9 | 77.3 | 70.7 | 83.9 |
| Admission rate per 1,000 head of population | 38.4 | 21.1 | 24.8 | 21.8 |
| Consultants per 1,000 population (WTE) | 0.04 | 0.02 | 0.03 | 0.02 |
| Waiting list numbers per 1,000 population | 3.4 | 3.4 | 4.6 | 4.2 |

WTE = Whole Time Equivalent.
Source — Research and Statistical 1 Branch, Management Services, DHSS (NI).

It has been argued that a fairer comparison with England would be to amalgamate data for general, urological surgery with trauma and orthopaedic surgery. Even if this is done the number of available beds per capita, for example, in Northern Ireland is 39.3% higher than in England.

Four basic reasons to explain these figures can be put forward. Firstly, a higher level of morbidity may exist in Northern Ireland, justifying a higher level of service activity and provision. The civil disturbances and the higher levels of traffic accident injuries are two examples of this. Morbidity is notoriously difficult to measure and mortality is usually taken as a proxy measure. Standardised mortality is higher in Northern Ireland than in other parts of the UK. (Table V). However, this does not account fully for the very high admission rate. A region such as Mersey which is disadvantaged, still has a much lower level of provision of services.9

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TABLE V
Standardised mortality ratio (SMR) by country and sex 1980

|          | Northern Ireland | England | Scotland | Wales | UK  |
|----------|------------------|---------|----------|-------|-----|
| Males    | 117              | 98      | 107      | 113   | 100 |
| Females  | 112              | 99      | 103      | 109   | 100 |

Source — General Registrar’s Office.

The number of consultants and their activity may be a second reason. Is there a fixed amount of disease which the available clinicians divide amongst them or does the appointment of more consultants result in more clinical activity? The results of research on this question are ambiguous. Bretty compared the regions in England and suggested that the number of surgeons was inversely proportional to the number of operations performed by each, though this correlation was not statistically significant. A study in Scotland showed that the number of cholecystectomies in each health board was positively correlated with the number of surgeons per head of population.

Thirdly, a number of authors report a positive association between admission rates and the number of in-patient beds. Linked to this is the threshold for admission. For general practitioners this appears to be altered by the perception of the bed availability and level of hospital activity. Several authors demonstrate that the number of admissions for emergencies and for terminal care respectively correspond with perceptions of a limitation of services. In relation to day surgery, a number of published examples show that it was the stimulus of limited beds and long waiting lists which led to the setting up of day care surgery programmes and units.

Fourthly, it may be argued that surgeons (and other consultants) in Northern Ireland are able to provide a better service, and are improving the population’s health and comfort because of the level of services here. A natural corollary to this is that any equalisation of provision vis-à-vis the rest of the UK should be a levelling upwards. Whatever the validity of that view, it would be naïve to maintain it seriously in the current economic and political climate. Rationalisation and re-distribution of resources within the health services in Northern Ireland with a reduction in acute beds, and more day case surgery seems inevitable.

In theory the last development should not be much at odds with the attitudes of general surgeons as reported in this survey. It may be prudent for surgeons and all clinicians involved in day care actively to translate theory into practice and to try to overcome the limitations to day care as they see it. In co-operation with other disciplines in the health and social services, real problems regarding, for example, communication, and co-ordination of domiciliary care can be addressed and overcome. By initiating change themselves, clinicians will be in a better position to respond to redeployment of resources and even to obtain extra resources that may be needed to set up efficient day surgery programmes in the first place. Accurate, complete, and up-to-date statistical information is vital for assessing situations and for rational planning and efficient running of the service. Clinicians will be best served if there is relevant data crediting them with their actual workload. Earlier in this paper some of the obvious deficiencies and
under-reporting in the realm of day case surgery were indicated. The importance of recording all day cases on the recently introduced HAA day case notification form should be realised and transmitted from clinicians to ward clerk and records staff.

We would like to thank all the consultant surgeons who participated in the survey, and Dr S N Donaldson, Senior Medical Officer, and Miss Maureen Boyd, Statistical and Research Branch, DHSS (NI).

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In view of the controversial nature of this paper, the editor has asked for a considered opinion from a surgical viewpoint.

SURGEONS' ATTITUDES TO DAY CASE SURGERY – Invited commentary.

The authors are fortunate in having obtained a 93 per cent response to a detailed questionnaire without personal contact with the surgeons circularised. However, the paper suffers from the fact that it is based on that questionnaire without fieldwork such as examination of at least some theatre operating book statistics. This form of research would have provided a better guide to the actual incidence of day case surgery than the HAA where ‘it is accepted that under-reporting of day cases occurs’. Certainly no surgeon would quarrel with their views that ‘accurate, complete and up-to-date statistical information is vital for assessing situations and for rational planning and efficient running of the service’. However, there are many weak links in the chain that leads from the clinician to the final draft of the HAA. Up to now, clinicians have felt that their time was best occupied in looking after clinical problems rather than statistical recording; obviously their attitudes will have to change.

In the survey, over 90 per cent of surgeons agreed to the eminent suitability of cystoscopy, gastroscopy and vasectomy for day case surgery. However, the authors dismiss these and focus on herniorrhaphies where less than half of the surgeons were in favour of day case procedures for selected patients with satisfactory back-up facilities. The discussion is based almost exclusively on day case herniorrhaphies, but the authors keep equating that with day case surgery. It must be pointed out that hernial repair represents only a small proportion of total surgery in any unit and an even smaller percentage of day case surgery. Indeed, in England and Wales, as they point out, only 3.3 per cent of inguinal hernias were done as day cases in 1982. If this figure of 3.3 per cent includes herniotomies in children, ideally suited to day case surgery, then the argument becomes even weaker. Thus during the year 1985 one surgical unit in the Royal Victoria Hospital admitted approximately 1,500 patients and operated on almost 1,000 in-patients. Of these in-patients only 50 had herniorrhaphy. Perhaps, at best, 20 of these patients might have been suitable for early post-operative discharge if we exclude elderly males with the risk of retention, various medical diseases in other old age group patients, those done under spinal anaesthesia, mothers of large families, etc. Should we have the back-up facilities for early discharge of these 20 patients they would still represent less than five per cent of the day case surgery in that surgical unit where there were approximately 500 day case operations in the same year (these included gastroscopies, vasectomies, lumps and bumps, etc). Only if one equates herniorrhaphies with day case surgery as the authors have done, could one conclude that ‘day case surgery has not greatly developed in Northern Ireland since 1913’. The cynical view of ‘surgeons’ apathy towards a policy which involves much effort’ is hardly borne out by the 93 per cent response to the questionnaire.

Comparison of the numbers of surgeons and surgical beds in Northern Ireland with those in England and Wales is made in a way to suggest that England and Wales have the right proportion. Some would suggest that comparison with rural Scotland would be fairer. In addition the United Kingdom has fewer doctors per unit population than any country in Europe except Turkey. Only 5.7 per cent of the gross national product of the United Kingdom is spent on health care compared with 8 per cent in France and Germany and 10 per cent in Sweden.

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The Short report recognised the need for an increase in the number of consultants in the United Kingdom and recommended that this be carried out forthwith; unfortunately this has not been implemented in spite of pressure from the Royal College of Surgeons in England. Could it be that Northern Ireland is nearer the ideal than England and Wales? The fact that more cholecystectomies were carried out in Health Boards with greater numbers of surgeons per head of the population is no bad thing. Many patients were thereby saved from suffering obstructive jaundice, ascending cholangitis, pancreatitis and even cancer of the gall bladder — normal gall bladders are not usually removed surgically.

For the authors to suggest that it may be 'prudent for surgeons and all clinicians involved in day case activity to translate theory into practice' is hardly justified when they base all their arguments on herniorrhaphies which constitute less than 5 per cent of the problem. The 'accurate, complete and up-to-date statistical information' they require is available in the in-patient and out-patient theatre operating books in any hospital.

G W Johnston, FRCS,
Consultant Surgeon,
Royal Victoria Hospital,
Belfast BT12 6BA.