# AN OPERATING LIST 1965 TO 1988

**John S. W. Whitehead, Honorary Consultant Surgeon**
**Department of Surgery**
**Royal Lancaster Infirmary, Lancaster LA1 4RP**

This paper arises from a habit of entering operations in a diary, and it is hoped that the theatre work-load and the problems, some changing and some constant, over the period, may be of interest. I had already recorded 7500 operations done in the preceding twelve years in teaching or district general hospitals with an appointment in two hospitals in the African Copperbelt. These years were, not unusually, dominated by the acute abdomen, for example 214 appendicectomies in 1959, and a paper in 1965 on 265 operations for acute small bowel obstruction. They also provided some less common challenges, such as three Caesarian sections. The more durable diaries used while working in this area provide a list of 12,644 operations. Operating is of course not the only duty of a surgeon, and there is no record of thrice-weekly clinics with their minor diagnostic and therapeutic operations, but there is evidence of 25 lectures and clinical demonstrations to doctors, 112 lectures to Lancaster and Kendal nurses, a duty (and privilege) which ceased in 1982, weekly tutorials as Royal College of Surgeons Tutor, and a round number of 800 N.H.S. domiciliary consultations. There is more indication than I had realised of committee meetings in Lancaster and Manchester, and a year as secretary of the Lancaster Medical Book Club. At the time of my appointment a general surgeon's work differed in some respects from today. The acute abdomen, including acute pancreatitis, still dominates the emergency scene, though this and diverticulitis seemed to increase over the years while the second commonest emergency of my training years, perforated peptic ulcer, became less frequent. 'Lumps and bumps' and 'bathing trunk area' surgery, if one can include varicose veins in the latter, are convenient terms to cover a sad waiting list problem. Biliary tract disease remains a constant time and space occupying problem, and carcinoma of the breast and colon are unchanged though not in their treatment. Elective and urgent surgery for peptic ulcer have declined. The three main changes which have occurred are (i) the separation of urology from general surgery, (ii) the addition of vascular to general surgery, and (iii) the impact of brain scanning and greater involvement of neurological surgeons in head injuries.

As an example of the effect of a urological service 1972 is a year in which the greatest number of operations (658) was performed and of these 128 were urological, excluding the overlap area of circumcision and testicular surgery. Retention of urine was a common emergency, with immediate catheterisation and, if fit, prostatectomy, usually but not always open, during the same admission. The advantages of the development of the speciality are obvious and well known, but it is worrying that skilful, i.e. gentle and painless, urethral instrumentation is no longer a basic part of surgical training.

In 1965 patients with ischaemic limbs were admitted under the orthopaedic surgeons for amputation. A policy of embolectomy was adopted and was successful if the artery was healthy and that patient not terminally ill. Amputations therefore became one of our duties. Aneurysm was in the hands of only a few in 1965 and the condition was rarely seen even as a diagnostic problem.

The management of head injuries in district general hospitals was different in those early days and they were admitted by previous arbitrary agreement either under general or orthopaedic surgeons – in the case of our area it was the former with access to neurosurgical advice on the telephone. The situation was of course different in the teaching hospitals. It became, in those days of purely clinical assessment, a point of honour that no patient should die without burrholes if there was any doubt about the pupils or deterioration in the level of consciousness. Consequently 44 patients had burrholes or elevation of depressed fragments of bone of which 29 died. I believe that these were dying patients, usually with all too clear evidence of brain destruction at operation, and that the minor operation did not contribute to the death, but it was a hard physical and emotional burden. Three successful operations for classical middle meningeal haemorrhage made the effort worthwhile.

One instance of extra-dural haemorrhage necessitated the transfer from Kendal to Lancaster of a 40 year old man who had fallen from his bicycle. He was taken to the theatre in Lancaster next door to where I had just started an anterior resection of the rectum, and an immediate burrhole evacuated a subdural clot, but the patient had become decerebrate. This was one of many instances which convinced me that emergencies or potential emergencies (such as gastro-intestinal bleeding) could only be brought legitimately to one central hospital. The duty of asking for transplantable kidneys was not shirked, and when tackled seemed to help in the distressing interviews by introducing a positive aspect.

In 1965 emergency operations were done not only at the Royal Lancaster Infirmary where there was one registrar and three S.H.Os, but also in the Queen Victoria Hospital (one S.H.O.) and Westmorland County Hospital (one registrar of S.H.O. experience). A gradual increase in junior staff occurred, but much acute abdominal surgery had to be done, especially if S.H.Os or new registrars were on duty, necessitating driving in to resect gangrenous bowel or to find the appendix. The situation improved to three registrars in one hospital, but it remained a policy to deal personally with gastrointestinal bleeding and trauma (head, chest or abdomen). It was also my rule to operate personally on nurses currently working or training in the group.

It must be appreciated that a similar quantity of operating was being done by the registrars, the most able being trained in all the common operations in Fig. 1. The senior house officers did minor and intermediate operations under supervision. Elective surgery was done in six lists in four hospitals. It seemed easy in those earlier days to get a theatre

in the evenings or on a Saturday, and cancellation of lists dues to theatre closure was not common in my first ten years. Regular sessions, emergencies and post-operative care in four hospitals meant a lot of time in the car, but the pleasure of travelling through the country was a compensation, except when the pre-motorway roads were blocked by snow (1966), flood (1967) or bank holiday traffic.

**COMMON OPERATIONS**

| | | DEATHS |
|---|---|---|
| INGUINAL HERNIA | 1101 | 0 |
| CHOLECYSTECTOMY | 885 | 8 |
| TRENDELENBURG | 624 | 1 |
| LARGE INTESTINE RESECTION | 569 | 51 |
| Carcinoma | 487 | 46 |
| Other | 82 | 5 |
| MASTECTOMY | 472 | 1 |
| VAGOTOMY | 357 | 16 |
| Elective | 287 | 3 |
| Emergency | 70 | 13 |
| THYROIDECTOMY | 314 | 2 |
| Emergency | 5 | 2 |
| Elective | 309 | 0 |
| HAEMORRHOIDECTOMY | 256 | 0 |
| PARTIAL GASTRECTOMY | 234 | 27 |
| Elective Benign | 92 | 6 |
| Carcinoma | 84 | 9 |
| Emergency | 58 | 12 |
| PROSTATECTOMY | 222 | 2 |

*Figure 1*

It would be neither useful nor interesting to tabulate all 12,644 operations. Figure 1 shows the ten most frequent operations. The often bilateral hernias and varicose veins are listed as operations rather than patients. It is relevant to the workload that at least as many, and probably more, of these two operations and haemorrhoidectomies were being performed over this period by junior staff.

The cases of inguinal hernia were aged from one day to ninety years. Ninety two had been done before, ten by me, and one of these twice. There were 101 femoral hernia repairs and 98 at other natural or artificial abdominal defects including two obturator hernias found at laparotomy, but excluding other internal strangulations. Cholecystectomy includes jaundiced and non-jaundiced cases, but excludes one incidental to hepatic resection for trauma, and numerous biliary operations not involving cholecystectomy. Cholangiography was regularly used except in emergency operations. The varicose vein operations are listed as saphenofemoral ligations but recurrent cases needing exploration of the groin are excluded. One unsatisfactorily explained hepatic failure led to the single death. The two deaths in the thyroid series are among the five emergency cases – one carcinoma and one huge goitre requiring sternotomy in an old lady in heart failure.

The intention, not always realised or recorded in the diary, was to have the vocal cords examined before and after operation by an E.N.T. surgeon who was both more expert and free from wishful thinking; there were one temporary and two permanent lesions in the last hundred nerves at risk, and one of the latter missed her preoperative appointment, which I heard only after beginning the operation. I had a preference for Polya gastrectomy and if the stump was difficult to close I supplemented as good a closure as possible in 13 cases with a snug T-tube in the side of the second part of the duodenum, at first on suction, and retained for ten days. This avoided stump leakage. One unintended postoperative 'cholangiogram' caused radiological interest. Billroth I was done 21 times with only one death from myocardial infarction, as it was used in straightforward gastric ulcer, some bleeding, and sarcoma. Two patients died in hospital after prostatectomy, but another had a fatal pulmonary embolism on his first night at home, ten days postoperatively.

**TRAUMA**

| | | DEATHS |
|---|---|---|
| LAPAROTOMY | 38 | 3 |
| THORACOTOMY & THORACOLAPAROTOMY | 8 | 3 |
| REPAIR LARYNX & TRACHEOSTOMY | 1 | |
| OTHERS | 8 | |
| SPLEEN | 18 | |
| KIDNEY | 3 | |
| SPLEEN & LEFT KIDNEY | 1 | |
| LIVER | 7 | 1 |
| LIVER & DIAPHRAGM | 1 | 1 |
| INTESTINE | 4 | |
| INTESTINE & MASSIVE RETROPERITONEAL HAEMORRHAGE | 1 | 1 |
| STOMACH | 2 | |
| PANCREAS | 2 | |
| MESENTERY | 2 | |
| BLADDER | 1 | |
| LUNG | 2 | 2 |
| DIAPHRAGM | 1 | |
| MASSIVE HAEMOTHORAX, NEGATIVE LAPAROTOMY | 1 | 1 |

*Figure 2*

The serious challenges were major trauma, gastrointestinal haemorrhage and malignant tumours. Head injuries have been described as a problem still evolving. Major visceral trauma at least could be approached with more training than a neurosurgical house job. Nine cases of major soft tissue trauma, including a self-inflicted separation of the lower larynx, which retracted to the suprasternal notch, were repaired without mortality, although in spite of psychiatric help the last patient repeated the injury and died before admission. There were 38 laparotomies with three deaths and eight thoracotomies or thoracolaparotomies with three deaths; three of these occurred 'on the table'. The second lung injury was in a six year old boy, and although drainage and autopsy showed that no further air or blood was lost, cardiac arrest in the intensive care unit a few hours later was sadly irreversible. The injuries are shown in Fig. 2. Four of the ruptured livers were approached thoracoabdominally – one, with ruptured diaphragm and haemothorax, died with inconclusive findings in 1967, and I have always thought that she would have survived later with intensive care. The remaining three survived with suture and biliary drainage (cholecystostomy was used in a six year old boy as his common bile duct was smaller than any available T-tube).

Gastrointestinal bleeding made the greatest demand over the years, as the seriousness of the problem in aged and unfit patients made it unsuitable for delegation. I did 182 ranging from oesophageal to rectal operations, some of these twice or even in one instance three times on the same patient, with 53 deaths. One hundred and twenty three bleeding peptic ulcers or erosions underwent surgery with 23 deaths. The operations used were (i) simple suture – 5 (1 death), (ii) vagotomy with appropriate drainage or suture – 62 (8 deaths), (iii) partial gastrectomy – 51 (13 deaths), (iv) partial gastrectomy and resection of jejunum – 2 (0 deaths), and total gastrectomy – 2 (1 death). In the last 10 years 50 operations were done – 24 vagotomies (4 deaths, average age 75), 24 gastrectomies (4 deaths, average age 72), 1 total gastrectomy for rebleeding (died – age 69) and one simple suture (died – age 85). Two cases treated by vagotomy needed reoperation and partial gastrectomy, both surviving. We obtained the best results with ulcers which had stopped bleeding, and not yet rebled, operated upon as emergencies.

Attempts were made to cure or palliate malignant tumours in skin, subcutaneous and retroperitoneal connective tissue and fat, muscle, kidney, ureter, bladder, prostate, thyroid, oesophagus (3 cases, 1 death), salivary glands, suprarenal small intenstine, ovary, testis (4 seminomata, 3 teratomata) and male breast.

The biliary tract deserves mention if not a figure. Apart from the gall bladder, ten common and hepatic duct carcinomata were intubated with polythene (1 death), 33 pancreatic tumours bypassed (5 deaths), 5 resected (2 deaths) and 10 explored (3 deaths). E.R.C.P. clearly has much to offer patients and surgeons in the future.

| | | DEATHS |
|---|---|---|
| **CARCINOMA OF THE BREAST** | 524 | 1 |
| LOCAL EXISION | 21 | |
| SIMPLE MASTECTOMY (8 grafts) | 332 | 1 |
| MASTECTOMY & AXILLARY CLEARANCE | 14 | |
| RADICAL MASTECTOMY (19 grafts) | 126 | |
| AXILLARY CLERANCE | 5 | |
| LOCAL EXCISION OF RECURRENCE | 6 | |
| OOPHORECTOMY | 17 | |
| ADRENALECTOMY | 3 | |

*Figure 3*

The four commonest malignancies were treated as shown in Figs 3 to 6. Carcinoma of the central and upper and outer breast was treated by agreement with radiotherapist colleagues by radical mastectomy for ten years. Sloughing and restricted movements were avoided by extending the arm before suture, and primary split skin grafting if suture produced tension. Patients were offered a choice of X-Ray or surgical oophorectomy if indicated. For the remaining 13 years treatment was simple mastectomy, lymph node biopsy with irradiation if positive, and tamoxifen.

Gastric carcinoma proved resectable in 64% of cases. One thoracoabdominal total gastrectomy, splenectomy and distal pancreatectomy patient was alive 9 years later when I retired, and a few partial gastrectomy patients were known to be well after 10 years – I had to explore one for acute intestinal obstruction due to adhesion, and found no evidence of recurrence.

| | | DEATHS |
|---|---|---|
| **CARCINOMA OF THE STOMACH** | **180** | **32** |
| EXPLORATION ONLY | 30 | 6 |
| BYPASS OR INTUBATION | 35 | 8 |
| PARTIAL GASTRECTOMY | 84 | 9 |
| TOTAL GASTRECTOMY | 31 | 9 |
| Abdominal | 22 | 6 |
| Thoracoabdominal | 9 | 3 |

*Figure 4*

| | | DEATHS |
|---|---|---|
| **CARCINOMA OF LARGE INTESTINE** | 538 | 53 |
| EXPLORATION ONLY | 9 | 2 |
| INTERNAL BYPASS | 12 | 1 |
| PALLIATIVE COLOSTOMY | 35 | 9 |
| RIGHT HEMICOLECTOMY | 104 | 11 |
| TRANSVERSE or DESCENDING | 47 | 4 |
| SIGMOID COLECTOMY | 61 | 3 |
| ANTERIOR RESECTION | 116 | 10 |
| HARTMANN'S OPERATION | 13 | 1 |
| ABDOMINOPERINEAL EXCISION | 141 | 12 |
| Alone | 112 | 9 |
| Synchronous Combined | 29 | 3 |
| BENIGN DISEASE | 82 | 5 |
| Resection or proctocolectomy | | |
| RESTORATION OF CONTINUITY | 75 | 0 |
| Intraperitoneal closure of colostomy | 69 | 0 |
| Restoration of Hartmann | 6 | 0 |

*Figure 5*

Of large bowel cancers explored 89% were resected, sometimes together with ovary and Fallopian tube, uterus, stomach, small intestine or spleen. One resection for sigmoid carcinoma in November 1972 was followed by left segmental hepatic resection in January 1973, and the patient was well in June 1988. Operations for benign disease, including total proctocolectomy and ileostomy are shown for numerical interest.

For many years I had an arrangement with two dermatological colleagues that any patient in whom they diagnosed a malignant melanoma would be admitted and operated on within days. In a paper to the North West Surgeons' Association in May 1983 I reviewed 58 cases in 18 years. Seventeen had died of the tumour and six of other causes. 25 had been operated on five or more years previously and 18 were alive.

This is perhaps an appropriate place to record my appreciation of the very helpful and friendly cooperation of radiotherapists, the tremendous advantage of having an oncological physician and a nationally recognised cancer care organisation and the great assistance to patients' and surgeons' morale of skilled stoma care.

Fig. 7. shows 172 miscellaneous operations, including a few operations for endocrine (other than thyroid) and haematological diseases which were particularly interesting

| MALIGNANT MELANOMA | 113 |
|---|---|
| EXCISION & SUTURE | 42 |
| EXCISION & GRAFT | 50 |
| BLOCK DISSECTION AXILLA | 7 |
| BLOCK DISSECTION GROIN | 10 |
| AMPUTATION OF FINGER | 2 |
| MASTECTOMY | 1 |
| MASTECTOMY, GRAFT & BLOCK DISSECTION AXILLA | 1 |

*Figure 6*

| | | DEATHS |
|---|---|---|
| NEPHRECTOMY | 44 | |
| RAMSTEDT | 38 | |
| SPLENECTOMY | 30 | |
| PAROTID TUMOUR | 30 | 1 |
| SUBMANDIBULAR GLAND | 15 | |
| PARATHYROID ADENOMA | 9 | |
| HEPATIC RESECTION | 3 | |
| PHAEOCHROMOCYTOMA | 2 | |
| INSULINOMA | 1 | |

*Figure 7*

and effective. Trauma is included among the nephrectomies and splenectomies, but splenectomy incidental to other operations is not included. It is disappointing that the series is marred by one death, due to myocardial infarction during the first night after an uneventful parotidectomy, in a patient thought to be at increased but acceptable risk from diabetes and atherosclerosis. One hepatic resection (right) had been started in the patient's car; another was planned for a large solitary metastasis after sigmoid colectomy. Both are, I believe, still alive and well. The third was for a ruptured hepatoma in the left lobe producing a haemoperitoneum, but in the second year contralateral tumour proved fatal. This list is clear evidence of years of hard work by anaesthetists and theatre staff, and their expertise, enthusiasm and friendship over the years has been tremendously appreciated, as has the kindness and skills of nurses in the wards and clinics, and the very accessible help of colleagues in all disciplines, especially radiologists and pathologists, and the vital skills of physiotherapists, pharmacists and secretaries, and constant support at home, of which at times I did not see much.

In my first six months I probably did too many operations – 325 – and in my last, I thought , too few – 196. Reduction to a happy medium of about 500 per year occurred with the welcome appointment of a urologist and a fourth general surgeon. In the last six months the small quantity was perhaps balanced in interest by the inclusion of a total gastrectomy (surviving 353 days), a total proctocolectomy, a parathyroid tumour, an emergency thyroidectomy, 5 partial gastrectomies, the forty-first but sadly unsuccessful thoracotomy in the lad of six, and a final evening case of duodenal obstruction due to an enormous gall-stone. One could perhaps claim to have been trying up to the last.

## QUIZ

### History

A lady aged 28 consulted her general practitioner complaining of tiredness. As there was a history of menorrhagia, he arranged for a blood count and this showed her to have a mild hypochromic anaemia. She was given iron for two months and when reviewed felt a little better but still rather tired; she had disliked the iron intensely because of constipation. A repeat blood count is shown below:

| | |
|---|---|
| WBC | 4.8 x $10^9$/l |
| RBC | 6.72 x $10^{12}$/l |
| Hb | 13.5 g/dl |
| HCT | 0.449 |
| MCV | 66.8 fl |
| MCH | 20.1 pg |
| MCHC | 30.1 g/dl |
| PLTS | 175 x $10^9$/l |

Film: RBC's show hypochromia, microcytosis and anisocytosis.

He interpreted this as persistence of iron deficiency and continued her treatment. Three months later, her blood count was unchanged.

### QUESTIONS

1. What does she really have?
2. How can this be proved?
3. What additional test might have been helpful?
4. What else might cause a similar phenomenon?

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