

# Gastrointestinal Endoscopy and Related Procedures

A HANDBOOK FOR NURSES AND ASSISTANTS

M. M. Ravenscroft and  
C. H. J. Swan



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# **GASTROINTESTINAL ENDOSCOPY AND RELATED PROCEDURES**

## **A Handbook for Nurses and Assistants**

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BALTIMORE

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Dedicated to our friends in gastroenterology worldwide, who have been a constant source of stimulation and encouragement to us, both in production of this book and in our everyday clinical practice.

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## FOREWORD

Ever since the invention of the fiberoptic endoscope in 1888, gastrointestinal endoscopy has grown increasingly popular in day-to-day patient management. Most recently, a variety of therapeutic procedures are also being performed through the endoscope. With increasing technological advances, new endoscopic procedures will be appearing on the horizon. It, therefore, becomes extremely relevant for the gastrointestinal nurse or assistant to be familiar with various endoscopic procedures.

*Gastrointestinal Endoscopy and Related Procedures* will be a useful and practical guide in the making of a qualified gastrointestinal assistant. This book is notable for its elegant style, illustrations, detailed account of procedures, and especially the instructions on patient care. Discussions on physical preparation of gastrointestinal procedures, helpful hints and instrument care add to the value of this book. The psychological impact on the patient undergoing endoscopic procedures and the nurse's role in alleviating 'the fear of the unknown' also is properly covered in the text.

It is refreshing to see a nursing perspective in the writing of this text. Throughout the whole book, one can feel a warm and humane approach towards patients with gastrointestinal disease. All these and more are, of course, a result of Sister Morag Ravenscroft's vast experience along with the guidance of Dr Charles Swan.

It is a textbook worth reading and relishing.

**Marcia Pfeifer R.N.**  
*Former President of the SGA*  
*Now with Gastroenterology Consultants Ltd,*  
*Racine, Wis. USA*

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## PREFACE

‘Some books are to be tasted, others to be swallowed and some few to be chewed and digested.’

*Francis Bacon*  
1561–1626

In planning the reading diet of students on our first Joint Board of Clinical Nursing Studies Short Course in Nursing for Gastrointestinal Endoscopy and Related Procedures (JBCNS No. 906), it became apparent that there was a shortage of books which provided a comprehensive reading background to this essentially practical training course.

This book represents a positive desire of the authors to pass on their knowledge and experience in gastroenterology to nurses, and perhaps doctors, who are working in this fast developing specialist medical field. It seemed a natural development for both authors who have for some time been involved in teaching the subject to doctors and nurses.

Although designed primarily for qualified nurses involved in diagnostic gastroenterology and therapeutic endoscopy, it may also be used as a reference book by student nurses, ward staff and medical students.

Most books on this subject have been written by doctors and the role of the nurse in gastroenterology has been defined by the clinicians. This book gives a change of emphasis and provides a balance of anatomy and physiology, applied pathology and the rationale behind the diagnostic and therapeutic procedures with particular reference to nursing care. It defines the professional role of the nurse in the gastroenterology department, providing guidelines for the management, research and teaching involvement likely to be incurred. It also includes a comprehensive section on the structure and care of instruments, aimed to ensure a high standard of technique to prevent damage to instruments, costly repairs and cross infection.

This book does not describe nursing care of ward patients suffering from gastroenterological problems but seeks to complement other texts which describe medical or surgical nursing care.

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It is hoped that by writing this book, we will have further advanced the quality of care of the patient and helped increase nurses' satisfaction from their work in this absorbing and fascinating field. We hope the book reflects the immense personal pleasure and satisfaction both authors enjoy in their field of work.

*M.M.R.*

*C.H.J.S.*

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We are indebted to the Endoscopy Committee of the British Society of Gastroenterology who gave their permission for inclusion of Appendix A 'Endoscopy and infection'.



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# ROLE OF THE NURSE

## INTRODUCTION

‘A trained nurse is the ideal person to assist in the organisation of an endoscopy service and at the actual examination.’

*BSDE Memorandum, 1973*

The nurse entering a specialized field such as gastroenterology should have at least one year's post-registration experience which will have given her the opportunity to develop her nursing skills, exposed her to first line management experience and enabled her to bring a mature approach to the specialty. It is important that a nurse in a relatively new and specialized field does not become isolated. It is also imperative that she receives training in the subject and is allowed contact with sources of information and education which will help her to develop her job to the benefit of the patient and to increase her job satisfaction.

The British Society of Gastroenterology Endoscopy Assistants Group and the Society of Gastrointestinal Assistants in the USA provide membership for nurses and assistants in the field of endoscopy and gastroenterology nursing. A newsletter is published regularly and personal contact with other nurses through meetings and conferences can be of great value. In the UK, the Royal College of Nursing seeks to promote the education of the nurse in gastroenterology and give recognition to her professional status in this clinical specialty. The Joint Board of Clinical Nursing Studies developed a short course for nurses in gastroenterology in 1979 covering the aspects of the work contained in this book. The course runs for 10–13 days and is the only recognized form of post-registration training in the UK. The course is 50% theoretical and 50% practical and a certificate of attendance is issued to all who complete the course. From 1983 this course will continue under the aegis of the UK Central Council for Nurses and Midwives. In the USA the Society of Gastrointestinal Assistants run a variety of courses.

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The duties of the nurse in gastroenterology are:

- Patient care
- Instrument care
- Management
- Teaching/research

### **PATIENT CARE**

The nurse is primarily responsible for the care of the patient, the physical and psychological preparation for all investigations and treatment, care during the procedures and after-care prior to discharge of the patient home or into the care of other ward staff for overnight or longer term stay. A qualified nurse already has sufficient knowledge of the general nursing care of the patient undergoing investigative or therapeutic gastroenterological procedures. She should be familiar with the anatomy and physiology of the gastrointestinal tract in order to understand the procedures and so that she can prepare the patient physically and psychologically.

#### **Physical preparation**

For most investigations and therapeutic procedures of the gastrointestinal tract, the organ involved must be empty and free from residual food and debris. Specific instructions are given for the physical preparation required for each procedure under the appropriate chapter headings.

#### **Psychological preparation**

It is essential, in order to carry out a satisfactory procedure, that the patient is prepared psychologically to accept the physical aspects of the procedure. Any investigation or treatment is a form of assault of the body and can cause resistance and embarrassment should the patient be unable to understand the reasons for the procedure and if the procedure is carried out in a manner or atmosphere lacking in reassurance. In order to retain the patient's confidence, a good relationship between doctor, nurse and patient should be established at the earliest opportunity. An explanation of the problem giving rise to the need for the test or treatment is best given direct to the patient by the doctor who has the clinical responsibility. The nurse receiving the patient will need to reassure herself that the patient has understood the explanation and if necessary give some added advice.

Most gastrointestinal procedures involve the passage of a tube, and it should be explained to the patient that they may have to swallow a tube with assistance from the doctor and/or nurse and that local anaesthetic and sedation will help make

this easier. Any discomfort felt will be temporary and inevitable and will probably be forgotten because of the sedation. Large bowel investigation requires a different approach since a major effect on the patient may be to cause embarrassment as well as discomfort. Reassurance from the nurse and privacy during the procedure are important to ensure the patient's co-operation and confidence.

### **Care during procedures**

The nurse's duties during endoscopic and other gastrointestinal procedures cover the physical safety and psychological well-being of the patient. By ensuring correctly functioning equipment, the provision of adequate facilities, the availability of correct drugs and resuscitation facilities, the physical aspects of care can be ensured. In order to ensure the psychological well-being of the patient, the nurse is required to understand the purpose and technique of the procedure to which the patient is being subjected. It is then necessary for her to explain the procedure to the patient in terms which can be understood. Only then, can any procedure be carried out safely with the full co-operation of the patient.

#### ***Upper gastrointestinal procedures***

During upper gastrointestinal procedures, the nurse must be aware of the hazards likely to arise from the actual procedure and the drugs involved. The nurse is able to observe the patient's vital functions while the doctor is involved with the view down the endoscope or while he is carrying out any investigative or therapeutic procedure. She should observe the patient's pulse, respiration rate and colour and maintain him in the correct position throughout the procedure. This facilitates ease of examination and adds safety and comfort for the patient. She must maintain the patient's airway by careful and discriminate use of suction and should reassure the patient throughout the procedure. Usually, sedation will make the patient relaxed and drowsy but not unconscious, and it is essential that the nurse remembers to treat the patient appropriately with carefully chosen words of explanation whilst ensuring that conversation in the room is kept to a minimum.

#### ***Lower gastrointestinal procedures***

Sedation may be used in some lower bowel investigations and care of the sedated patient is essential. Observation of pulse, blood pressure, respiration rate and colour, plus reassurance and a quiet atmosphere are essential. The door is best kept closed to ensure privacy and to prevent waiting and recovering patients from seeing or hearing what is going on in the endoscopy room. Check blood pressure before procedure (i.e. after bowel preparation). Once again, position is important during lower bowel examinations as this helps to ensure a

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safe and satisfactory procedure. The nurse will be responsible for maintaining the correct position and ensuring that the patient is as comfortable as possible.

#### **After care**

##### ***Upper gastrointestinal procedures***

The general principles of the care of the sedated patient are applied. It is essential that the patient is fully conscious and has a satisfactory swallowing reflex. Care must be taken that the effects of any local anaesthetic have worn off before food and drink are given. Explanation that most abdominal discomfort is due to the insufflation of air and that this will gradually lessen should be given. Particular problems relating to some procedures are dealt with in the appropriate chapters.

##### ***Lower gastrointestinal procedures***

The care of the sedated patient again applies. The nurse should ensure that the patient is clean, dry and comfortable while recovering from the procedure and may again need to reassure the patient that any discomfort will soon pass. Special reference is made to particular problems under the appropriate section.

The patient should be discharged from the unit with the knowledge that the procedure was carried out satisfactorily and with such information about the result as the doctor and nurse consider relevant.

### **MANAGEMENT**

The nursing management of a gastroenterology department depends on the range of service provided, the number of staff employed and the line management position of the individual nurse involved. In order to cope with the service provided it is essential to ensure that there are sufficient staff to cover holidays, study days, sickness and work taking place outside the department. For example, a nurse may be assisting at a session in the Radiology department.

The Gastroenterology service in a District General Hospital should provide:

- Upper gastrointestinal endoscopy

- ‘Bleeder’ service

- Colonoscopy and polypectomy

- Endoscopic retrograde cholangiopancreatography

- Non-endoscopic procedures such as:

- Secretion tests

- Malabsorption investigations

- Liver biopsy

may also be catered for and will require sufficient nursing and technical staff.

A suggested staff structure for a department providing the above service is as follows:

SRN – Sister Grade II

Additional nursing staff: Staff nurse(s)

State enrolled nurse(s)

Clerical/secretarial personnel

Nursing auxiliary

Orderly

### **Liaison**

The nurse in charge of the department will be required to liaise with other hospital departments in order to guarantee the smooth running of the department. Contact with the Radiology department, wards, administrators, hospital medical personnel, stores, domestic and maintenance personnel will all fall within the responsibility of the gastroenterology nurse. She should develop good interdepartmental relationships and learn whom she should contact to solve problems within her department.

One of the most important contacts the nurse working in endoscopy will need to make and consolidate at an early stage in her appointment will be with the appropriate instrument companies. Local arrangements for the repair and maintenance of equipment must be observed, but the nurse should form a relationship with instrument companies in order to gain information and advice about the endoscopy equipment and accessories under her care. The companies play a vital part in helping to maintain a good service to the patient by providing information leaflets, rapid servicing and repair facilities and useful advice by telephone and directly from their representatives in the field.

The day to day organization of the department will depend on the efficiency of the nurse in charge. She may be responsible for:

Organizing lists

Sending appointments to patients

Arranging the provision of the 'emergency' endoscopy service

Liaising with wards for the treatment of inpatients and for the provision of beds for patients who may require to be admitted from the department

Ensuring satisfactory documentation of all procedures carried out in the department

Photographic records

Recording of pathology specimens obtained – the forms, containers and department record book

Liaising with the Radiology department for screening time for procedures where necessary

## **INSTRUMENT CARE**

That component of the role of the gastroenterology nurse which may be completely new to her is the technical knowledge necessary to maintain the equipment involved. It is essential that early training is given in the structure, function, cleaning and disinfection, maintenance and repairs of all equipment and accessories in the nurse's care. Without clean, functioning equipment it will be impossible to provide an efficient service to the patient. This training can be provided by the instrument companies, by visits to other units and by approved training courses. A great deal of the training will inevitably be in-service training and help should be available to the nurse from other nurses in post, medical personnel, nurse managers and teachers. Representatives of the instrument companies are also helpful in providing information and demonstrations of equipment in their product range.

The structure, care, cleaning and disinfection of instruments is covered in Chapter 2.

## **TEACHING AND RESEARCH**

It is part of the duty of every qualified nurse to pass on her knowledge to colleagues and learners. Opportunities to learn how to teach arise via management courses and in-service training departments and expert advice is readily available.

Nurses in specialized areas such as gastroenterology have a responsibility to ensure that other hospital nurses can gain as much knowledge as possible while visiting the specialized department. The nurse in charge may also be involved in talking to groups of trained staff about her work, thus helping to improve the care of patients and develop good relations with wards and departments throughout the hospital.

Should the service and the expertise of the gastroenterology staff make it possible, the nurse may be involved in training nurses in this specific field. Liaison with nurse education staff will ensure the nurse has the support and confidence to teach her subject satisfactorily.

Research is an ongoing process within many units and may cover clinical trials, drug trials and nursing research. It is often the nurse who is a permanent member of the research team and it is helpful if she is involved in the planning and setting up of trials within her department. Clinical and drug trials require careful structuring to avoid interference with the every day running of the department. The trial must be accepted by the local ethical committee and should be part of the general care of the patient. Clinical drug trials will involve the monitoring of patients' response to treatment and may include such things as venepuncture, questionnaires and diaries of symptoms and drugs taken.



The department nurse can assist with the collection of such information after suitable training.

Nursing research is required to evaluate the nurse's role, to record the efficiency of nursing staff and to help plan staff structures within a department.

## **Documentation**

As in other clinical areas, careful records are required for inclusion in the patient's case notes and in the department files. These are often used retrospectively for research and planning purposes. The most common types of letters and reports which may be required are:

Letter of appointment: specifying date and time, plus clear instructions as to the location of the department. Warnings must be given on the letter about the effects of sedation and if necessary, about the likely exposure to radiation.

Consent form: giving details of the procedure to be carried out. This form can be a routine hospital operation consent form or forms can be specifically designed for each type of gastroenterology procedure.

Medicine sheet: a record of drugs administered is also required for the case notes.

Report form: on completion of each procedure, a report on the findings must be completed. This will include the patient's name, case note number, date of birth etc. and various types of report forms are available.

Records of orders for ancillary equipment, the working condition of endoscopes and the repair history of equipment will also be important for the efficient running of the department.

## **Photography**

The photographic recording of endoscopic findings contributes to:

- Improved documentation of the patient's clinical condition
- Good teaching facilities within the department
- Extra research sources

The methods of photographic recording can be:

- Transparencies
- Prints
- Video

Photographic methods are dealt with in greater depth in Chapter 2.