

**DEPARTMENT OF SURGERY
STEVE BIKO ACADEMIC HOSPITAL**

**MANUAL/HANDBOOK
2015 Edition**

**REGISTRARS/MEDICAL OFFICERS/
INTERNS**

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Vision

- To be the Best Academic Department of Surgery in the region.

Mission

- Practise best clinical surgery whatever the circumstances.

Objectives

- To create conducive learning environment
- To produce safe medical practitioners in the Surgical Emergency
- To produce competent doctors in their chosen field
- To train critical thinkers and learners with ability to adopt and adapt new knowledge

Values

- Respect of human right of all our patients and their families
- Uphold the highest professional and ethical standards
- Any intervention should only be in the best interest of the patient
- A vibrant and pleasurable training environment

Calling

- Our calling is to prevent premature death and to relieve suffering
- Our calling is not to abolish death, but allow our patients to die with dignity

MOTTO

- To Till Our Best Is The Best

Surgeons often have a heavy workload stretching over many hours. It is absolutely imperative that a surgeon's decisions and actions are of such a nature that he will be able, on all occasions, to give an account of his actions, both to himself, his colleagues and the patient. Be patient. Exercise restraint even in the face of provocation from colleagues, management or patients. Irascible and erratic behavior may harm your patient and certainly will harm working relationships with your colleagues. To take out your temper on instruments or theatre personnel, blaming everybody else except yourself, is a sign of a personality out of control.

A surgeon always acts under control; people are placing their lives in one's hands.

- A good doctor is always a good doctor, regardless of the circumstances or environment. Circumstances should not influence your being a good doctor. They can only influence the extent of your ability; a lack of essentials makes one less effective but not a bad doctor. Always strive to be a good doctor.

- **It is by training that the athlete becomes fit.**

This Department strives to work to the best of its ability. There should always be an all out effort to render the best service to our clients, the patients.

- **Paper has a better memory than the keenest brain.**
(Scripta manent verba volant)

Please have a little pocket note book ready to jot down those precious pearls that come your way so frequently and to note what needs done. Furthermore, all encounters with the patient must be accurately, if only briefly recorded. These notes might save our collective bacon when medico-legal threats arise.

- You cannot be taught in absentia.

Medicine is a practical profession. It is learnt by both theoretical tuition, and practical demonstrations and professional task execution. One cannot study Medicine by correspondence. You must present yourself to all learning opportunities.

It is very easy to pick up during an examination which student has combined textbook with practice and those who just studied the textbook.

- **Lead by example.**

Consultants to interns are in one way or another, leaders. Please do it with distinction.

- **Good leadership is the highest form of service**

The good leader will have a servant's heart and will lead people to self-actualization. Good leadership is not for self enrichment. He will not use the shoulders of his subordinates so that he can get all the honour and glory.

- Punctuality is the courtesy of Kings.

Arriving late and leaving early is growing a disease amongst doctors and the cell phone and bleep have accentuated this bad habit. The notion amongst people that whenever a doctor arrives late or leaves early, he/she is going to save a life, has cultivated this habit. We all know that it is not so in many cases. Please be punctual and show respect to your colleagues and on time.

- **When the road changes from tar to dirt to corrugation and potholes, that is when rattles are picked up and the quality of the vehicle is tested.**

In spite of all the negativity around us, there is still enough to be extremely thankful for. We are still in a position to get world class training, we can all keep our heads up high wherever we go in the world and whenever overseas guests visit our Department, they are all very impressed with our training and compliment us on the quality surgeons that we produce. We are currently addressing the apparent weakness in systematic research through reorganization and streamlining the clinic and clinical processes.

All members of the Department are urged not to fall into the trap of negative talking because this is a vicious downward spiral; one thing leads to the next and it is very difficult to get back into an upward trajectory. There is an impression that the standard of maintenance is dropping in the hospitals. The Department of Surgery is urged to be part of the solution rather stand aloof and criticize! When you see a piece of paper or other debris lying around, pick it up and put it in the bin. In the wards the nurses are not there to clear up after doctors, please help by clearing up after you have done a rectal examination, put up an IV or while you have your gloves on, just help with the cleaning up of the sigmoidoscopy for example

- **Your demeanor and deportment must befit the profession at all times.**

Personal neatness is taken for granted. Everybody is part of the professional team.

We expect everybody to look like doctors and not like some other occupations where it is “cool” to look scruffy.

May the coming year be one of many successes and fulfilment as you strive to make the best contribution that you can.

GENERAL

All members of the Department of Surgery are expected to be representative of the Department at all times. They should “buy into” the *Motto* of the Department and will be “signatories” to the code of conduct, performing their duties as expected of each individual.

CODE OF CONDUCT

- Our primary concern is the patient’s best interest at all times.
- Show respect for the patient and their expectations through our demeanor, attitude and appearance (as outlined in the Dress Code)

Consultants should:

- Be academic leaders within the team (ensure that you are well-read)
- Guide the treatment of patients
- Teach under- and post-graduate students
 - ◆ Clinical signs and symptoms
 - ◆ History taking
 - ◆ Examination of the Surgical patient
 - ◆ Case presentations
 - ◆ Practical operative techniques by
 - demonstrating and
 - assisting at operations
 - do research
 - supervise and moderate post-graduate presentations. NB. do not wait to be contacted by the registrars, initiate the contact.
- Set the parameters for the functioning of the firm and communicate these clearly to the team at a formal meeting at the commencement of any new time period or when new team joins the firm
- Participate in the examination and evaluation of students. Try to co-ordinate leave with sic block exams. No major operations during sic block exams.

Examination rules (Under- and post-graduate)

Under no circumstances during written or practical examinations will any books, notes, texts or electronic aids be allowed to be used to augment or aid the students performance.

During practical examinations the following is permissible, stethoscope, ENT-set, Baumenometer, tuning fork, Patella hammer, gloves, KY-jelly, cotton wool and pin for neurological examination, blank writing pad and pen.

REGISTRARS

Registrars are in the Department to learn the practice of the Discipline of Surgery. The most senior registrar in the firm is the chief co-ordinator of the functionality of the firm.

- Responsibilities may be delegated to junior colleagues, but s/he remains responsible for the quality control, and completion of tasks
- Do clinical work/history/filing/discharge letters/investigations/examinations/discharge/presentations/consultations regarding their patients
- Link between H.O.D. and juniors
- Available for their patients at all times
- Get involved with research as early as possible
- Finalise a topic
- Liase with the moderator
- Do the TNM course soon

1st Year

Primary subjects, Anatomy, Physiology and Anatomical Pathology must be passed during this year. Study the basics of the Principles of General Surgery. Any standard surgical textbook may be used for this purpose.

“Principles of Surgery” lectures and discussions run over a yearly cycle, it is expected of you to start attending these discussions on a Wednesday afternoon at 16:00 in the Department of Surgery lecture room, so that by the time that you do the Intermediate examination after 2 years you will be thoroughly prepared.

2nd Year

This year will be spent in other Surgical Disciplines; the principles as outlined in the brochure need to be studied. You will be examined at the end of the year, when successful you will return to the study of General Surgery within the Departmental rotation. If unsuccessful, you will be re-examined after six (6) months, re-examinations may only take place twice. (i.e. 2 failures maximum)

Rotations:

- Intensive Care 3 months
- Thoracic Surgery 1-2 months
- Plastic Surgery 1-2 months
- Neurosurgery 1-2 months
- Urology 1-2 months
- Orthopaedics 1-2 months

3rd – 5th Year

The process of the study of Surgery in this Department should develop and perfect the art and practice of Surgery for each Registrar. At the end of the 5th year it will be expected of you to be proficient in the management of General Surgery clinical problems and appropriate operation. At the end of your 5 yr training period you will be expected to write Professional Exit Examination by

the College of Surgeons (SA) FCS (SA) on behalf of HPCSA. You will be expected to present and successfully defend a research Dissertation for University MMed (Chir)

- Discussion of X-Rays
- Discussion of Surgical Pathology
- Discussion of Surgical Anatomy
- Discussion of Surgical Operative Techniques
- Discussion of General Surgery
 - Indications for operations
 - Types of operations
 - Treatment options
 - Controversies
 - Current views/Historic views/your view

Ultrasound (basic) for neck, vascular and abdomen

The final examination can only be repeated once.

NB: You cannot receive the M.Med(Surg) degree unless you have submitted a thesis of research. The format of the thesis is included in the “Departmental programme booklet”. From 2015 there will be a single exit final professional exam currently administered by Colleges of Medicine SA which require a prior research thesis/dissertation by training University.

Congress attendance

It is expected of you to read papers at congresses

- SRS/ Registrar Symposium
- ASSA
- VASSA/Trauma
- SAGES

Logbook

- It is expected of you to keep a record of everything you do on a **daily basis**
- This is recorded in a diary – especially for that purpose
- All the information is transferred **weekly** to an Excell file on a computer within the Department or at home
- All logbooks (the diary) will be inspected by the H.O.D. on a rostered basis, published separately from time to time.
- The diary will be checked and duly signed by your current Head of Firm before it is brought for inspection.
- Included in the Departmental Programme is a list of procedures as well as the level of expertise expected of you at the end of your training.

Morbidity and Mortality meetings

This is a learning experience. Fruitful discussion depends on all the information being presented, if a post mortem was performed on your patient it **MUST** be attended by a team member, to get final feedback. Relevant pathology reports and X-rays must also be available and presented on all cases.

Final word

When you decide to do an operation on your own

- Know your limitations
- Shout for help before it is too late
- Consult rather sooner than later
- If you cannot get hold of anybody, phone Prof. Mokoena

HIV + AIDS

The retrovirus is prevalent in our community, all patients must be managed as if they are positive. Universal precautions must be taken, protective eye wear is imperative during operations and resuscitation.

In the event of inadvertent exposure, the necessary ARV medication must be commenced. See student flow-chart. (See Attachment A at the back of the book).

All patients with sepsis or cancer must be tested for HIV status.

MEDICAL OFFICERS

Medical Officers who intend to become Surgeons, must do their Primary Examinations during the year, before they can be considered for a Registrar position. You need to register with the University as well as at the different Departments, notifying them when you intend to do the examination. Consult with the Heads of Departments on the curriculum and appropriate textbooks.

- Anatomy
- Physiology
- Anatomical Pathology

It is also strongly recommended that you complete the following courses in this time:

- ATLS
- BSS
- TNM

During the year, you will be exposed to the Department and the Department to you. Mutual affinity will determine whether you will continue and be appointed as a registrar, whereupon the registrar rotation will commence.

M.O. duties will be within the Surgical firm and will be similar to those of a registrars, keeping the individual's lack of experience in mind.

It is the duty of the firm to

- Be supportive
- Provide a learning environment
- Teach you the Principles of surgery especially signs and symptoms and not to abuse your juniority

It is expected of you to be

- Willing to learn
- Willing to do menial duties

- Willing to start at the bottom

INTERNS

This is part of your under-graduate studies.

You cannot register as a fully fledged practitioner unless you have “passed” this hurdle. You are not a non-essential person situated somewhere between the post- and under- graduates. Interns often “swing the lead” because there are colleagues above and below them who will do the work for them, because they have exams to pass and the interns do not.

It is expected of you to know all the patients in the firm, and be able to

- Assist with major operations
- Open and close an abdomen
- Remove minor tumours/cysts/lipoma
- Suture the bowel
- Remove an appendix
- Ligate a bloodvessel
- Do a proctoscopy
- Do a sigmoidoscopy
- Insert a central vein catheter
- Accompany the patient to special investigations eg. Gastroscopy, sonar, X-rays, angiography, Nuclear Medicine

DRESS CODE

It is expected of everyone in the Department of Surgery to show respect for the patient in attitude, demeanour and dress, at all times. Because what is considered to be fashionable *and* respectful dress, differs from time to time and from person to person culture to culture, it is necessary to have parameters within which individual variation can be expressed and tolerated.

It is an insult to a patient when one is involved in asking personal questions or encroaching on their physical privacy during an examination, to be scruffy, unkempt, wearing skimpy clothing that may reveal the cleavage, too much thighs, umbilicus, midriff, chest or other parts of ones anatomy.

PATIENT RESPONSIBILITY

Patients managed in the Department of Surgery, are in medicolegal terms the responsibility of the qualified members of staff. Under-graduate students who are members of the integrated professional team that treats patients are afforded the opportunity to learn and hone clinical skills in the treatment of patients. This is a privilege and not a right.

All patients should be treated with utmost dignity, respect and professional commitment by all including the under-graduate members of the team at all times. In the event of any dereliction of duty by a student towards patients, the student will forfeit the privilege to further clinical training in the Department of Surgery.

GENERAL DIRECTIVES

- Clean/washed/No B.O. or you will be asked to return home to complete your ablutions
- Clean clothes
- White coat
- NB A safari jacket is not a white coat

A safari jacket is primary dress, but one may wear something suitable underneath, if one so wishes,

NO long sleeves under a short sleeved jacket, least of all a jersey. A safari jacket being primary dress,

A SAFARI IS BUTTONED UP but white coat can be worn unbuttoned.

Hands always clean and groomed (disinfected if necessary)

Nails always short and clean (it is absolutely unacceptable to do an internal investigation/examination on a patient with long nails)

Hair: Men no ponytails
no hair longer than to the collar
clean, non-greasy

: Ladies hair tied back
no hair in the face
“Fringes” above the eye-brows

- Natural hair is easier to keep clean and under control in theatre – artificial hair (plaits, extensions etc) is acceptable as long as it meets the above requirements
- Ladies – no exposed cleavage or midriff
No mini dresses
- No running shoes or related footwear
- Men – no sandals
- Men – shoes with socks
- Men – if one intends to wear a white coat, the dress underneath is SHIRT AND TIE
 - if it is hot and one wants to be “open necked” – one may wear a safari jacket or a white short sleeved shirt with a collar

2. Introduction

Please familiarise yourself with the content of this handbook.

2.1 Guideline

The Department is primarily a referral centre for district and regional hospitals from Tshwane District Hospital according to Gauteng Health and guidelines

The Department functions according to firms and specialised units set out below.
Four General Surgery firms: Monday, Tuesday, Wednesday and Thursday

Upper GI Surgery - Monday firm
Transplant and HPB Surgery - Tuesday firm
Breast and Endocrine - Wednesday firm
Colorectal Surgery - Thursday firm
Head and Neck Surgery - Thursday firm and Prof Pretorius

It is expected of all members of staff to be clean, neat and of professional deportment with white coats. Males are expected to wear neck ties if a collar is worn or else a white short sleeve top or white safari top. No jeans or sneakers are to be worn. Females must dress sensibly and have due regard to older people's sensitivities with fashion.

2.2 Hierarchy of Responsibilities

The professor and chief surgeon is overall in charge. The senior consultants in charge of firms are overall responsible for their respective firms/units. This responsibility is shared by delegation with other consultants.

Registrars are responsible for running the day to day affairs of the firm. They should make all the decisions about patients referred to SOPD or Casualty for opinion. When in doubt one must not hesitate to consult with his consultant. **In all cases the consultant on call must be made aware of all urgent/emergency cases.** Registrars must make certain that all documentation is in order. Medical officers will deputise registrars to the level of their experience and competence.

All patients admitted to the department must be examined by the responsible registrar personally during or soon after admission.

Interns/housemen must make sure that all instructions to junior doctors, nurses and other health care workers are carried out. **At no stage must interns make decisions** on admission, denial of admission or discharge of any patient they should attend to while in this department. They should refer all patients to medical officer, registrar or consultant for decisions.

Student Interns function in support of interns on house keeping, therefore they are not to make any therapeutic or administrative decisions on their own.

2.3 Theatre Bookings

It is the responsibility of the registrar concerned to make sure that the theatre booking list is submitted to theatre by 13h00 the day before. Always indicate your # hash or cellular number at which you may be contacted in case of queries or problems.

A list of theatre allocation is available in the Department and from sister Boshoff at the 4th floor theatre complex, and may change from time to time.

There is a Tshwane District Hospital minor operations theatre list by rotation between different firms which must be booked in advance. Please consult theatre allocation list. This theatre is particularly suitable for teaching interns minor procedures.

Operating time table for firms/units of Department of Surgery.

Be realistic about time and do not overbook.

Be punctual and at least be 15 minutes earlier in theatre.

Be available with lifting of the patient to the operating table.

Be available in helping to put the drips and foleys catheter.

Discuss the unusual/uncommon cases beforehand with theatre sister so that appropriate instrument can be prepared for the operation and be available.

Book intra-operative radiographic imaging procedure the day before with X-ray Department.

Book Frozen section day before operation.

Anaesthetic consultation must be done 2 days before the operation for those problematic patients undergoing an operation.

Report problems to other personnel and to the consultant so that conflicting situations can be resolved.

Nobody should start a procedure if not thoroughly prepared beforehand for the operation.

2.4 Academic Programmes

The following are set Academic Programmes which all members of the Department except those actively involved in patient care are expected to participate in:

Monday 15h30 : Radiology meeting 5th floor - Radiology Department

Monday 16h30 : Morbidity and Mortality Meeting, Department of Surgery

Tuesday 16h00 : Research meeting

Wednesday 16h00 : Pathology meeting - Institute of Pathology

Wednesday afternoons indicated by the years roster

Thursday 16h00 : Gastro-Enterology meeting at Department of Surgery, 3rd week multidisciplinary M&M(see 1.4.1)

Friday 13h00 : Academic programme - Department of Surgery

2.5.1 3rd Thursday of each month at 16h00: Multidisciplinary Morbidity and Mortality Meeting presented by different disciplines by rotation. Therefore no GE meeting.

3. Regional Hospital, Clinics and Referrals

3.1 Steve Biko Academic Hospital is a referral centre for certain hospitals and clinics. Please check the latest referral routes for Gauteng hospitals.

3.2 **Emergency transfers** are to be arranged telephonically with the registrar on call. Referrals can only be accepted from a hospital of Steve Biko Academic referral route.
In case of doubt, contact the consultant on call or the Head of the Department.

4. **Duty matters**

4.1 **Working hours**

Departmental activities begin strictly at 07h15 Monday to Friday with an intake report.

Before the morning meetings, ICU and critically ill patients must be seen by registrar.

It is advisable that all doctors be on the hospital premises until 16h00 (if not on call or no post grad meetings).

All must attend the meetings which are compulsory and function as a forum for official departmental communication as well as formal and informal tuition.

Weekends

Every firm is responsible for its own patients and they must be seen by the firms registrar or medical officer together with the intern.

4.2 **Calls** begin and end at 07h00 on week days and end at 08h00 on weekends.

Emergency surgical cases presenting between 06h00 - 08h00 weekends can be handed over to the incoming doctors on call by mutual arrangement. Afterhours on week days and weekends problem patients must be personally handed over to the registrar coming on call.

The Department **does not** subscribe to the practice of day off or early termination of duty on post call day as doctors are expected to complete working up of newly admitted patients over and above all else.

4.3 **Call list**

The call list is drawn by the department on monthly basis. Any problem with the list must be discussed with the Head of the Department or the consultant delegated to draw up the list.

The casualty, the switchboard and the Departmental secretary must be informed in case of any changes to the list submitted.

4.4 **Sick leave**

A leave form obtainable from the departmental secretary must be completed and a medical certificate submitted for absence of longer than 2 days.

4.5 **Annual leave**

Annual leave for registrar's, and MO's is co-ordinated by the Department and for Interns by the base Department of Surgery.

Leave forms must be handed to the Department 1 month before the actual leave.

Interns leave is allocated in advance and this must be adhered to.

- 4.6 **Special leave**
Examinations and congresses are regarded as special leave and a notice must be handed over 1 month before or as early as possible.
- 4.7 House doctor's rotation is organised by the Superintendent and Head of the Department.
- 4.8 **Teaching of students**
MBChB VI:
 - Students rotate for three weeks in the Department and take part in all the firm's activities i.e. clinics, weekday rounds, weekend rounds and also calls.
 - Even though they are responsible for some of the ward work, these must not interfere with formal or informal teaching.
 - They may assist interns with their work but this should not absolve the intern from their primary responsibilities.
- 4.9 **Communication / Speed dial**
 - Every doctor must obtain a cellphone hash number and give this in at the Department office secretary.
 - Cell phone and/or home telephone numbers must be handed in to the Departmental secretary and these will be published on the call list.
5. **Administrative aspect of patients**
- 5.1 **Surgery wards:**
- | | | |
|-----------|---|--|
| Wards 6.5 | : | Female Surgery |
| Ward 6.4 | : | Male Surgery |
| Ward 6.10 | : | Transplantation |
| Ward 4.6 | : | Surgery and Trauma ICU
All burns patients |
| Ward 4.0 | : | Vascular Surgery ward |
| Ward 3 | : | Paediatric Surgery |
- 5.2 **Admissions**
 - Admission form must be filled in for each patient together with the prescription forms with clear instructions to the nursing staff, eg. N.P.O., Prepare for theatre, admit to ward x.
 - The name of the patient, hospital number, age, and diagnosis must be filled in the intake /admissions form obtainable from out patients and emergency department and wards.
 - The surgery clerking book must be filled in by the intern doctor and/or students on call.
 - TPH 1 forms are filled in by the admitting doctor (intern/registrar/consultant).
 - For speedy admission on emergencies, must be organised with the casualty nursing staff.
 - Any patients taken over from other disciplines must get a surgery clerking book.
 - Patients admitted on behalf of the other firm must be handed over the next morning directly to registrar concerned.
 - All patients must be admitted via SOPD or Casualty if not a clinic day, where they

should be clerked fully before or at admission to ward.

- Elective admissions are admitted directly to ward provided they have an admission form completed by the respective unit.

5.2.1 When the wards are full, patients may be admitted to other disciplines wards. Such patient must be seen regularly and full ward round conducted. These patients must be returned to Surgery wards as soon as there is vacancy.

Patients referred to surgery on call doctor will be treated as a consultation and if the condition is for surgical admission, then a surgical clerking book to be completed. If the casualty patient is not for surgical admission, then the patient is referred to appropriate discipline or back to casualty officers to manage further.

5.2.2 Other disciplines may admit their overflows patients to our wards but after consultation with our registrar on call. No acutely ill patients or infectious patients should be accepted. These should be substituted by stable non-infectious patients from the respective discipline.

5.3 Discharge

5.3.1 Discharges are to be done by the house doctors and registrars on the authority of the consultant.

5.3.2 **Discharge letter:**

NB!!! This is a very important document and is the responsibility of registrar to ascertain its accuracy even though the intern and/or medical officer may have helped.

During discharge, all the patient information is stored in the data bank/computer.

All the diagnosis, complications and the procedures done are coded according to the international coding system.

Coding to be done by registrars/MO in the department.

Write a short summary of the clinical picture and progress of treatment and disease, the diagnosis, complications and procedures are recorded. State clearly the future plan for the patient.

Limited use of words and abbreviation are important because there is limited space available on the database.

Treatment such as radio- or chemotherapy must also be indicated on the letter.
Print 3 copies of the discharge letter.

Discharge letters, must also be filled for patients who died and for patient who are transferred to other departments or hospital.

On completion of triplicated discharge letter/notes, give one letter to the patient to keep as his/her own records. This letter must be shown to her/his family doctor, referring doctor or hospital and patient must be informed about this.

The first copy must be taken out of the bed letter and be put in the special box reserved for this

purpose in the doctors' room in each surgical ward.

The 2nd copy remains in the bed letter.

Any letter of referral from other hospitals must also be filled in and sent back to the referring hospital with an answer at the bottom.

5.3.4 Prescription (TTO)

TTO's to be filled in on the back of the ward prescription forms.

TTO's to reach the dispensary before 10h00 am.

TTO's for schedule 7 medications on motivation may need additional forms to be sent with prescriptions.

5.3.5 If a follow up appointment is needed, hand an appointment card to the patient yourself with the date of follow up clearly written and patient explained to.

The appointment must be made on the specific firm's clinic date.

5.3.6 Make sure that all radiology reports are in the patient's file.

5.3.7 Write a summary of diagnosis and plan in the bedletter of the patient for further handling of the patient and other outstanding results or investigation.

5.3.8 Please fill all the sick leave, pensions or disability forms for the patient before the patient leaves the hospital.

5.3.9 Make sure that the patient knows what her or his diagnosis is as well as the long term treatment plans. Take time to explain in as simple a language as possible in order for the patient to understand and remember.

5.4 Re-admissions

5.4.1 For patients discharged from the ward, but to be admitted on later date:

- complete discharge forms and print 3 copies.
- Give appointment for re-admission date and please state clearly admission ward and firm's name or consultant.
- Hand file and patient over to the sister in charge.
- All re-admission or elective admissions must be made directly to the ward.

5.4.2 The names of outpatients booked for theatre on a later date must be filled in the firm's booking book.

The name, age, hospital no, diagnosis and type of operation planned for the patient must be written clearly in the booking book. Please include patient telephone or mobile contact in case of any changes with the booking.

5.5 Documentations and notes in bedletters

5.5.1 This can be done by the students or intern but remains the responsibility of the registrar.

Use a black ballpen in all the notes.

Daily progress; problems and plans of further management must be clearly noted in the file or bedletter with clear indication of the **most senior member** of staff who has made the decision or recommendation.

5.5.2 Operation Notes

All operations must be filled in in the bedletter in the specified area.

Notes must be written as completely as possible by the doctor who performed the operation.
(See example below)

Minimal Requirements and Guideline for Operation Notes/Record

Remember these are an important medicolegal documents. You might meet them next in court several years hence: therefore they must be sufficiently detailed to remind you of the event as well as convince the presiding officer (a lawyer by training). They should reflect your thinking during the operation! The unexpected, unusual and difficulties.

Example 1

Title of the Operation: Full description

Example:

Oesophagogastrectomy, antiperistaltic left colon transplant, Roux-en-Y colo-jejunosotomy with feeding jejunostomy and incidental splenectomy.

Surgeons:

List All. They might save you in court several years later especially if the notes are not complete or convincing.

Date:

Be careful and be accurate especially at year change, month change.

Anaesthetic and Anaesthetist (s):

Indicate nature of anaesthetic and anaesthetist(s) - (can be omitted if a separate anaesthetic record is reliably completed).

Indications:

Describe fully why operation was done e.g. acid ingestion, with oesophageal strictures and destroyed stomach.

Access:

Describe the exact incision(s) and if special position state it clearly.

Midline laparotomy, left cervical curvilinear incision.

Finding:

Record the findings in full, not only abnormal ones but also relevant normal e.g. stomach contracted into narrow tube with only fundus spared. Duodenum normal. Adhesions of stomach to liver, spleen and transverse colon. Spleen, liver and small bowel normal.

Procedure

Describe the essential steps of the procedure to indicate that careful thought and meticulous dissection was applied e.g.

- 1) Adhesion of stomach to liver, colon and spleen released.
- 2) Stomach mobilised fully. Tear of spleen during dissection - packed with spongosten and swabs. Bleeding continued → splenectomy effected.
- 3) Blood supply to previously prepared left colon evaluated by prior arterial clamp isolation.

Left colon mobilized with blood supply based on left branch of middle colic artery.

Previously measured length of left colon isolated and a transverse sigmoid colon anastomosis effected with single layer interrupted 3/0 PDS.

- 4) The cervical part of oesophagus mobilised and rigid vein stripper passed into stomach and retrieved through gastrotomy. Oesophagus stripped/avulsed from its bed with some difficulty. Stomach mobilisation completed with suture ligation of left gastric vessels. Duodenal stump closed in single layer continuous 3/0 PDS suture.
- 5) Left colon passed through bed of oesophagus with vessels protected in split large pencil drain. Colo-cervical oesophageal anastomosis effected with single layer interrupted 3/0 PDS.
- 6) 40cm antecolic Roux loop fashioned with staples and a 32FG circular stapler used for colo-Roux-en-Y jejunostomy.
- 7) Tunnelled feeding jejunostomy placed beyond the Roux loop.

Haemostasis:

Always comment on haemostasis so that should post-op bleeding occur it is known that you had made sure otherwise e.g. satisfactory, cautery and ligatures used. If excessive intra-op bleeding, state volume and/or intra-op blood transfusion.

Drains:

- 1) Nasogastric tube into colon transplant secured with nasal halter
- 2) Portovac drain to neck
- 3) Argyle drain to mediastinum through left subcostal

Closure:

- 1) Lap in layers; 1DPS to sheath, clips to skin.
- 2) Neck, vicryl interrupted to muscle, clips to skin.

Dressings:

Dry

Specimen:

Always comment on specimens so that if they get lost, there is at least record of you sending them, e.g. Histology.

Post op Orders:

Always comment regardless who writes out the orders. Remember anaesthetist usually write analgesia only and perhaps fluids, but never observations orders including management of drains such as frequent drain emptying and record of output. Always order BP/Pulse/Resp for at least 8 hours even in otherwise straight forward cases, lest nurses neglect to check your patient. This may be of important medicolegal significance should patient collapse post-op because either nurse neglect to monitor and call you when condition "change" or post-op haemorrhage or anaphylaxis.
e.g. Fluids, Analgesia and ventilation a/c ICU staff.

Prognosis:

This is usually advisable in severe trauma or extensive malignancy case because when patient demises, relatives might blame you and not the disease.

Remember to visit your patient in the ward to confirm that your patient is safely returned and condition satisfactory, your orders are understood and being followed!

Example II:

Operation title: Emergency Appendicectomy

Surgeons

Dr Longnose, Dr Another, Medical Student Diligent

Date:

03/03/03

Anaesthetic:

See record

Indication:

?Perforated appendix

Access:

McBurney's Incision

Findings:

Retrocaecal appendix with faecolith.

Rt Ovary and tube N

Enlarged ileocaecal LN → Biopsied

Terminal ileum N

Procedure:

Appendicectomy effected

Stump buried with purse suture

Haemostasis:

Achieved with cautery and ligatures

Drain:

Nil

Closure

2/0 Vicryl to muscle. 2/0 Nylon interrupted mattress to skin

Specimens:

X1 Lymph node for histology

Post OP Orders:

Ordered - see prescription sheet.

Diagnosis:

?Viral ileitis

Prognosis

Good

5.5.3 Afterhours

Complete notes must be written in the bedletters of any patient seen by another firm

afterhours.

Do not prescribe any antibiotics without discussing it with registrar or the consultant. See "fever work up" under burn wounds protocol.

5.5.4 ICU or High Care patients must be seen twice daily i.e. am and pm.

Notes must be written on the ICU plan chart.

5.5.5 Weekly statistics which includes total admissions, operative activity, complications and deaths are prepared on Monday morning for the previous week and handed in to secretarial staff for compilation. This is presented at the morbidity and mortality meeting on Monday afternoon.

5.6 Prescriptions

5.6.1 Ward prescriptions are to be written on H430/GPS117 forms.

Dosages and intervals of treatment must be clearly written.

Outpatient prescriptions are written on TPH 172/81-516151 form (Orange)

Motivation forms must be filled in and signed by the consultant/registrar.

Students may prescribe for schedule I-IV medications but under supervision and signature of registrar, medical officer or intern doctor.

Revise the treatment daily as necessary and nursing orders eg. fluid therapy, wound care.

All new prescriptions are to be written and left in nursing ward file.

5.6.2 All doctors must have prescribed Doctor/Signature stamps or sign and clearly write Dr name, degree and hash number which must be used with every prescription.

5.6.3 Treatment for ICU patients must be discussed with the doctor on call for ICU.

5.7 Injury on Duty (IOD)

All IOD patients must be seen by the registrar.

Complete notes must be written.

Non-emergency cases of IOD must be seen by the casualty officer.

IOD forms can be filled in by any registrar of the firm the patient was treated by.

5.8 Transfers and Transportations of patients

5.8.1 For a transfer to other hospital:

i. Fill in a transfer form in triplicate

ii. Fill in an official transport form

iii. Fill in a consultation form.

iv. Make sure that the patient is suitable for the chosen mode of transport eg. ambulance or shuttle Combi.

5.8.2 Emergency transfer to Kalafong Hospital

In emergency cases where transport is needed as soon as possible to Kalafong, the registrar must phone the municipal ambulance service to come and fetch the patient.

Paramedics shall then be available to accompany the patient.

All the documentation should be ready.

The transfer should first be arranged between the referring and receiving registrars.

5.8.3 Transfer back to the referring hospital must be done as follows:

- Fill in the lowest part of the referral letter of the referring hospital stating what management was done.
- Discharge the patient as point 4.3.
- Follow up appointment card given if patient is to come back.
- A discharge letter must be addressed to the referring doctor or the Superintendent of the hospital with full information. Our hospital number and follow up dates to be clearly written.
- A copy of the referring letter and the first copy of the discharge letter to be put in an envelope addressed to the referring doctor and hospital.
- Hand over the envelope to the patient or the ward sister.

5.9 **Surgery Out Patients Department (SOPD)**

The SOPD is run from Monday to Thursday from 08h00-16h00.

Upper GIT unit does Monday, Breast and Endocrine does Wednesday, Hepatobiliary unit and transplant do Tuesday and lower GIT unit does Thursday.

The firm on call runs SOPD and casualty simultaneously.

Fridays have no formal SOPD.

Uncomplicated wounds followed up at Wound Care OPD - 4th floor.

Stoma management followed up at Stoma Therapy dept - 4th floor.

Urgent cases are seen in Casualty otherwise patients should be booked for next SOPD day of that firm on call referring the patient to SOPD.

All walk-in patients are seen in the Emergency Department. Cold cases referred from another hospital are referred directly to the surgical OPD if accepted by registrar on call.

Emergency cases should be seen at Emergency Department.

All previous trauma patients must be given review appointments for the firm that originally saw the patient.

5.10 **General guidelines about SOPD**

- Try to start as early as possible to avoid piling up of patients at least one doctor must start at 8h00.
- Surgery outpatients must be seen before 14h00.
- No new referrals to SOPD after 14h00.
- All doctors except those who are on call must be in the meetings by 13h00 on Fridays.
- Cold surgery patients must be worked up as outpatient as much as possible depending on the condition of the patient and transport availability to and from the hospital.
- A lot of special investigations can be done as outpatient eg. sonar, X-rays, gastroscopy and blood investigations.
- Make sure that a patient is fit for operation well in advance of admission.
- Control diabetes mellitus and hypertension as outpatient.
- Small procedures are done in the SOPD such as:
 - Proctosigmoidoscopy
 - Biopsies: (FNA, Trucut) needle + excision
 - Aspiration cytology
 - Drainage of superficial abscesses under ethyl chloride.

5.10.1 **Appointment Book / Theatre Booking Book (See 4.3.2)**

- It is used for prevention of overloading of the wards and theatre lists.
- Each firm has an appointment book which should be kept in SOPD at all times.
- The book must be handed over to the new registrar during change of rotation personally.
- The registrar then books patients in advance for specific dates.
- The name of patient, hospital number, diagnosis and planned procedure and patient contact details must be written on that specific date.
- Patients should have clear explanations about operations and instructions to come the day of operation for admission. Many elderly patients will need new blood results if previous ones are more than 3 months old.

5.10.2 Minor or Day Case Theatre

Minor procedures can be done at SOPD minor theatre or booked for Tshwane District Hospital Theatre (to book with sister Sibaka -5739) for operation on a Thursday minor list. Cases must be booked on Tuesday for Thursday theatre list. This list is done by interns supervised by MO/registrar for Monday and Wednesday on alternate weeks.

5.10.3 Theatre allocation at Steve Biko Academic Hospital will be as follows:

Mondays	15 8	Lower GIT 8h00-16h00 Laparoscopy only on week 2 and 4 (8h00-16h00)
Tuesdays	14 15	Vascular (8h00-16h00) Breast (8h00-16h00)
Wednesdays	8 14 15	Head and Neck (8h00-16h00) Open half day list (week 1,3,5) Upper GIT (8h00-16h00)
Thursdays	14 15	Tuesday firm (8h00-16h00) Hepatopancreatobiliary (HPB) (8h00-16h00)
Fridays	15 18	Endocrine (8h00-13h00) Hernia list (8h00-16h00)

5.11 Special investigations

5.11.1 Radiology

Fill in TPH62D form in triplicate.

State clearly clinical findings and reason for request of investigation.

State type of investigations required.

Angiography, CT scan, PTC, ERCP and gastro-intestinal contrast studies must be requested through this form and be monitored by the registrar and the doctor must personally speak to the radiologist.

5.11.2 Written consent for all radiological special investigations is necessary. Make sure that clotting profile is normal, IV line is up, urinary catheters in where relevant.

Make sure that patients are punctual for the investigations so that they don't miss the appointment. Bowel preparation should be done in all cases of GIT contrast studies and colonoscopy.

Bowel preparation to be prescribed and patient informed of diet and when to keep Nil per os

for investigation.

Sonar examinations must be used only if necessary and not be misused.

- 5.11.3 Sick patients need the presence of medical students, nurse or house doctor during invasive or even some ordinary investigation to try and avoid complications.

This applies to all trauma or acutely ill patients from Emergency Department to the X-ray Department at all hours.

- 5.11.4 Remember an incomplete or a half hearted radiological investigation is useless (and can be misleading).

Therefore it is necessary to insist that the investigation be done in the correct manner/way, eg. CT scan with contrast medium IV and orally, double contrast Ba-enema in all those lesions that have already been seen on early films, IVP with cystogram and post micturition X-rays in traumatic haematuria.

Discuss all unusual, complicated or high risk patients with the radiologist on call.

Be personally available and involved as much as possible when the investigations are done. This often results in higher quality examinations.

- 5.11.5 Emergency X-rays in the ward with the mobile X-ray machine are usually of poor quality. In most cases you should organise personally with the radiologist or radiographer on call to do the X-ray in X-ray Department if the patient can be transported.

5.12 **Blood Investigations**

There should be no routine blood investigations. Always ask yourself how the result is going to influence the patient's management. Do not order a battery of tests but rather order a specific investigation. If you order any test, always take note of the results and act on them. This is not only good practice but to ignore to check the result of a test may lead to a charge of professional negligence should something untoward occur to the patient. The list of pre-operative tests as recommended by the Department of Anaesthesiology is available in the wards.

5.13 **Cytology and Histology**

- 5.13.1 Much of ablative surgery rests on tissue diagnosis. Therefore cytological and histological specimens must be collected properly and preserved correctly in order to obtain reliable results. It is the duty of the registrar to make certain that proper procedures are followed and that results are obtained (and posted onto the patient's file **even after death or discharge.**)

- 5.13.2 Frozen Sections should be booked with Department of Pathology at SBAH the day before and the timing of the operation discussed with the pathologist concerned.

6. **Consultation to other Departments**

Consultation to physiotherapy, social work and others need specific forms.

6.1 **Consultation to Steve Biko Academic Hospital**

6.1.1 The form is simple and should be filled in by the intern doctor or registrar.

All urgent consultations should be done telephonically with the registrar on call of the involved department and the consultation form left at the patients bed.

For the best result arrange with registrars to meet at the bedside of the patient.

In case of unsatisfactory or unsuccessful discussion with the registrar of the other department, inform your consultant immediately.

Weekends and afterhours registrars on call must personally or telephonically consult each other.

Patients consulted for must be seen before handing over to the next team.
Consultations are accepted 24hrs.

6.2 **Supporting services**

Consultations to physiotherapy, social work and others need specific forms.

Provide sufficient information and specify what type of service is needed eg. diet - what type, crutches and passive exercise.

6.3 **Consultation to Radiotherapy and Nuclear Medicine**

Consultation form to accompany patient on date of appointment.

7. Consultation from other departments must be seen as soon as possible but always on the same day of consultation by registrar on call. If registrar is tied up he/she must arrange and delegate a colleague to do so.

The consultant must be informed immediately if there is a slightest doubt about the consultation or patient.

Don't hesitate to telephonically consult with the referring doctor in case of any problems or queries with consultation.

8. **Special Clinics**

The following clinics are held in Steve Biko Academic Hospital, where patients must be followed up and or treatment be recommended.

8.1 **SURGICAL FIRMS SCHEDULES**

OPD,CLINICS AND INTAKE

Monday Mokoena + Upper GIT + Transplant
+ Combined Breast Cancer Clinic
(Laparoscopy)/(Colorectal)

Tuesday Maluleke + ?HPB

Wednesday Ntlhe + Breast & Endocrine
(Bariatric) (New patients)

Thursday Pienaar + Colorectal + Head&Neck

THEATRE

Pienaar Alt. Gen Surg

(Ntlhe)(Breast)/Vascular

Mokoena Gen Surg
(Upper GIT) Head & Neck

+ Laparoscopy

Maluleke Gen Surg (Hernia)/HPB

Friday On Call team+Trauma+
Special Wound Consultation
(Problem Wound only)
Ntlhe (Multi disciplinary)

Ntlhe (Endocrine) Vascular/
Access Dialysis/Hernia

Saturday

Sunday

Intake pairing for Friday/Saturday/Sunday
Monday/Wednesday Tuesday/Thursday

8.2 Head & Neck Clinic is at Radio Oncology Department at Tshwane District Hospital
Thursday 14h00 lecture hall on the ground floor.
All head & neck cancer patients must be seen there.
Head & neck forms must be fully completed.

9. Burns

Should be referred fresh to Kalafong Hospital unless Kalafong is full

Adult Admission policy to Burns is:

- burns $\geq 20\%$ TBSA
- burns across joints
- burns of hand or feet
- burn of face
- burns to perineum
- inhalation burns

9.1 Burned patients seen in the Emergency Department are thoroughly washed in the ward shower after admission under appropriate analgesia.
Contact the burn unit according to emergency list.
Admission forms for burned patients are pink.

9.2 Fever protocol for burned patients (also applies to any patient)

- take temperature yourself
- take full clinical examination: lungs, urine, catheters, MCS on wound swaps.
- take blood for FBC and blood cultures
- send urine and sputum for culture
- tepid sponging, pain medication eg. Panado
- no IV antibiotics without the consent of the consultant
- write full notes in the bed letter.

10. Paediatric Surgery

Children between 0 month to 12 years with surgical conditions are managed by the Paediatric Surgery team.

Children over 12yrs are managed by Adult Surgery Team

11 Intensive Care Unit/High Care

11.1 ICU

There are 6-10 beds in adult ICU serving all surgical disciplines under administrative responsibility of the Intensive Care Department. Only patients with multiple organ failure or those needing ventilation will be admitted after consultation with ICU doctor on duty/call.

11.2 Emergency admission to ICU

Seriously ill patients, with threatening or already presenting with organ failure can be admitted in ICU only after personal consultation with the ICU doctor on call.

Full details about the patient's clinical condition, complications etc. must be provided.

11.3 Elective admission to ICU

It is for major operations only, in which post operative ventilation is needed.

It must be booked at least 3 days before the operation and it must be confirmed a day before and the morning of the operation.

11.4 Expected duty of the surgical service group with the patient in ICU:

Registrar must see the patient in ICU at least twice - morning and afternoon and on weekends at least once.

The surgery doctor either registrar or MO remains answerable and responsible for all surgical procedures and conditions of the patient(i.e. managing the drains, further operation and removal of stitches or drains, etc.)

Good communication with the ICU staff is important.

You can suggest medication of the patient to the ICU doctor who remains accountable for the physiological well being of the patient.

11.5 High Care

All ICU patients are ideally discharged via High Care for stabilisation before transfer back to general ward.

Other admissions to High Care will be unstable patients or patients on whom problems are anticipated either pre- or post-operatively. These should be discussed with both firm's consultant and doctor on call in ICU.

The overall responsibility of patients in ICU/High Care remain that of the primary doctors be they surgeons, physicians, orthopods, etc. The ICU doctor is responsible for managing the physiology of the patient in both ICU and High Care patients.

12. Medico-Legal Aspects

- 12.1 Every doctor (except interns) is medico-legally responsible for any treatment or procedure carried out or omitted on any patient. While a clearly documented instruction from a senior colleague would be a mitigating factor, it does not absolve the doctor concerned from his/her individual liability. While the hospital may assist in some aspects of medico-legal litigation this cannot be relied upon. Therefore, the Department strongly recommends that all doctors must possess a **valid medical malpractice insurance** such as obtainable from Medical Protection Society through the agency of SA Medical Association. Well written contemporaneous notes are better than the best memory and the adjudicating officers, be they HPCSA Medical Board Disciplinary Committee members or Judicial officers, rely on written reports to make their judgement, where these are absent they will give the complainant the benefit of doubt. If you remember to write a note later, always make this fact clear and date it. Insertion of notes

between others without making this clear is liable to be interpreted as post-hoc cover up especially when things go wrong.

11.2 **Medico-Legal Documents**

Sick leave, J88 (assault), disability, or insurance forms and death certificates are important medico-legal documents which must be filled in timeously and accurately to reflect the true clinical status as best known (and documented). Never alter or in any way conceal material facts as a favour to the patient, relatives or any third party including employers or employee representatives. Such an act is punishable by Medical Board of Health Professions Council SA (HPCSA). **Do not procrastinate or decline to fill in such forms when it is your responsibility.** If in doubt, consult your senior.

12.3 **Police cases awaiting trials:**

12.3.1 These patients are under police guard and are secured or tied to the bed.

If this interferes with therapy or treatment the guards must be informed.

Many of these patients do not have good sickbay facilities, so they must be discharged only if completely stable.

12.3.2 Patients who are already charged:

These patients can be discharged to the prison's clinic for further treatment, eg. dressing and medication like injections and tablets.

All patients must be discharged with discharge letter to the district surgeon or the nursing staff informing them of the progress in the hospital stay and advice of how to continue with treatment.

12.4 **Forensic Post Mortem**

12.4.1 Medico-legal post mortem examination:

It is done in all cases of unnatural deaths, i.e. all trauma deaths, burns patients, patients who died under anaesthesia by the Forensic Pathology Department.

No death certificate should be filled in these cases.

Only the back part of the death certificate should be filled.

The medical report should be filled in and all handed over to the ward sister.

Make sure that the file is discharged and that all the notes are complete before the file leaves the ward.

NB.: Be careful you may find or see this file again in court after several years, so write good notes!!!

NB.: Anaesthetic death are defined as death which take place or happened during anaesthesia or before the patient is fully recovered from anaesthesia or death which occurs within 12hrs after anaesthesia. Remember that trainee Anatomical Pathologists need practise, so avail them of such opportunities as often as possible.

12.4.2 Non-forensic autopsy is done to ascertain the reason for death. This is done by Anatomical Pathology Department. A request form, family consent form and clinical history document must be completed. Remember that trainee Anatomical Pathologists need practice, so avail them of such opportunities as often as possible.

12.5 **Consent for Procedures/Operations**

Patient must be informed and explained to by the doctor(registrar, MO or consultant) about the procedure, or investigations/operation and treatment which will be undertaken. Written consent can be obtained by any doctor but remains the responsibility of the surgeon(s). It is recommended that both sister and doctor are present when the procedure or operation is being explained and the consent is signed.

13. **Disaster Management**

13.1 Disaster can only be declared by the Medical Superintendent on call. If you suspect that a disaster is about to occur or notice one evolving contact the superintendent on call.

13.2.1 When a disaster is declared the most senior registrar/Medical Officer informs the consultant surgeon on call and he goes to the casualty to assist triage of patients.

13.2.2 The consultant surgeon joins the registrar/Medical officer at the casualty, assesses the situation and informs the head of department.

13.2.3 The head of department in consultation with surgeon on call decides on whether and which extra surgical staff is needed and directs that this be made available.

13.2.4 A full scale disaster will be managed according to accepted plan and principles including vacating certain wards, prioritising patients for operative care and calling for additional resources under the leadership of the head of department or in his absence, surgeon on call.

14. **Security**

14.1 Security on the Hospital premises is not assured. There have been cases of theft of staff belongings such as attaché cases, handbags, purses, departmental equipment especially computer related, car radios and cars. There have been instances of assault on staff.

14.2 Therefore be careful with personal belongings, lock them away when not in your personal possession. When on intake make certain that your car is in a secure place.

14.3 Avoid walking alone in the dark. This is particularly pertinent for women. If you see someone behaving suspiciously or strangely while alone, do not confront him, rather alert security. Female doctors/student interns are well advised to get security to escort them at night within the hospital if they are on their own.

15. **Injury on Duty/HIV Exposure**

15.1 Injury on duty, however this should happen, is to be reported to medical superintendent and requisite forms completed.

15.2 Any needle “stick” or contamination of staff mucus membrane by patient body fluids must be taken seriously and active steps taken to ascertain HIV/hepatitis virus infection status of the patient.

15.3 The procedure is to obtain blood from the patient and the member of staff concerned for emergency HIV or hepatitis viral status determination. This is done by reporting to the casualty officer on duty who opens an IOD file. If the patient is HIV positive and the member of staff is negative an HIV prophylaxis is started within 2 hours of the incident. Emergency treatment is obtainable from Casualty.

15.4 A written report of all IOD incidents should also be lodged with Head of Department of Surgery. This may be the only reliable record in a few years time when late complications of HIV or Hepatitis virus infection manifest and proof of the original incident is needed!

15.5 Staff members include medical students in this case.

16. **The Surgical Team**

Finally, the Department functions on a team basis, comprising doctors, nurses, pharmacists, physiotherapists, dieticians, other health professionals, clerk, porters and general assistants. Be prepared to learn from others while you teach and assist those less experienced than yourself.

Be honest with yourself, your colleagues and above all your patients. When in doubt, ask and all will be revealed to you!

17. **Policies and Protocols for Common Diseases and Procedures**

17.1 **Patient Presenting with gastrointestinal bleeding**

Bleeding is a significant symptoms and sign. Patients are usually frightened by it. So should be the doctor-it must taken seriously however minor it might seem.

All patients who report abnormal bleeding must be investigated fully. The first screening is a thorough history of coagulation disorders including bleeding tendencies, medication and herbal medicine intake.

Minimum investigations should include FBC, LFT with INR and urea & electrolytes. If bleeding is significant or continuing, full resuscitation must be carried out even before accurate diagnosis has been established. However diagnostic investigation should continue along side resuscitation if at all possible.

All **Upper GI** haemorrhage patients should undergo upper GI endoscopy within 24hrs unless bleeding actively with sustained shock, then **emergency Upper GI is mandatory**. Most lower GI haemorrhage are not life threatening and would stop spontaneously. Significant and witnessed lower GI bleeding should have urgent lower GI endoscopy including rigid procto-sigmoidoscopy and if bleeding emanates higher then urgent colonoscopy.

Insignificant lower GI bleeding must be further investigated with either lower GI endoscopy or radiocontrast enema.

Preparation for elective (urgent or otherwise) colonoscopy needs thorough preparation (see colonoscopy preparation protocol)

Life threatening lower GI haemorrhage may require emergency mesenteric angiography and embolization or on table colonoscopy and colectomy. For otherwise undetectable cause of significant lower GI bleeding urgent radionuclide scan might be useful.

17.2. **Preparation for Barium Enema**

Day One: (Day prior to examination)

- (a) No breakfast
- (b) **Only liquids such as :**
 - i. Clear soup
 - ii. Bovril
 - iii. Marmite
 - iv. Tea or Coffee (black only -No Milk")
 - v. Jelly
 - vi. Grape Juice
 - vii. Apple juice
- (c) **Avoid :**
 - i. Fat
 - ii. Oil
 - iii. Vegetables
 - iv. Fruit
 - v. Eggs
 - vi. Milk
- (d) Patient must walk around as much as possible if possible
- (e) Drink one glass of water hourly from 13:00-19:00
- (f) 20:00 - Drink 250ml Coloprep

17.2.1 Day of Examination:

- (a) 05h00 Fleet enema per rectum
- (b) 06:00- Drink 1½ glasses of water (Black tea or coffee with sugar if preferred)

17.2.2 Colonoscopy Preparation

- All patients must be admitted 2 days before procedure
- Doctor should send all OPD cases to Gastroscopy Suite to book date themselves and have procedure properly explained

NB: GOOD PREPARATION IS MANDATORY FOR A SUCCESSFUL EXAMINATION

PLEASE GIVE SPECIAL CONSIDERATION TO THE FOLLOWING

1. You must sign a consent form for colonoscopy and removal of polyps
2. Bring X-Rays "(Ba -enema) with to the Gastroscopy suite
3. Preparation must be followed carefully as prescribed. Please make sure that all the Goltely (Kleen - Prep) mixture is taken
4. Patient must be accompanied by a family member or friend because sedative are administered and patients will not be allowed to drive a car after the examination.

TWO DAYS BEFORE EXAMINATION

- (1) Clear liquids e.g. water, lemonade, black tea, liquid-fruit (only apple and white grape juice)
- (2) No milk, Bovril, jelly, precision diet, strained soup or fruit juice
- (3) Lot of water plus or minus 3 litres per day
- (4) No iron tables
- (5) No solids food

CATHARTIC: One bottle X-prep at 18:00

DAY BEFORE EXAMINATION:

- (1) Clear liquids as previous day
- (2) No milk, Bovril, precision diet, strained soup or juices
- (3) No iron tables
- (4) No solid foods
- (5) **GOLYTELY (KLEEN-PREP) MIXTURE (AS PRESCRIBED)**
 Mix with four litre of water. Flavour with lemon or Oros is preferred.
 Starting at 16h00 drink one litre of this mixture every hour **UNTIL ALL IS FINISHED!**
- (6) Nothing by mouth as from 22h00 except Golytely (Kleen-Prep) if not finished.

DAY OF EXAMINATION:

- (1) Nothing by mouth
- (2) 1x Fleet enema at 06h00

All patients must have working IV line on the day of examination.

Hb must be 10 or above

17.3 Patient Presenting with GI Obstruction

All patients with obstruction of the GI tract tubes need urgent if not emergency treatment. Therefore, unless there are compelling reasons they must be investigated as inpatients. Such patients include oesophageal stricture e.g. Ca Oesophagus, gastric outlet obstruction, suspected small or large bowel obstruction.

All but most mild cases need fluid resuscitation.

It is important to establish a feeding strategy early and implement it.

In hospital starvation is common and results in significant morbidity.

Incomplete small bowel obstruction can be observed if there are no peritonitic signs. Colon obstruction is dangerous and requires urgent decompression either surgically or colonoscopically.

17.4 HIV Testing Policy

An aggressive HIV testing policy is followed

All patients with sepsis

All patients with cancer (any cancer)

All patients with TB, invasive fungal or viral infection

All patients with DVT

All patients with peripheral vascular disease

17.5 Diabetes/Blood Sugar Testing Policy

Most Type II diabetics first present with complications therefore the following must be tested:-

All patients with sepsis

All patients with peripheral vascular disease

All comatose/ confused patients even following apparent trauma

Known diabetic patients

17.6 CRP Testing Policy

CRP is an expensive test and should be used discriminately.

Patient with obvious sepsis/inflammation that can be attributed to obvious cause need not be

tested for CRP levels.

CRP should be used to monitor anticipated post-op complications.

17.7 Management of Crush Injury

Most crush injuries seen in Hospital are as a result of blunt object assaults. Sometimes crush injuries may result from traffic accidents or falling building masonry.

Main clinical danger of crush injury is rhabdomyolysis and ensuing renal failure or cardiac dysrhythmias.

It is important therefore to test for myoglobinaemia and myoglobinuria., Serum Creatine Kinase/Creatinine Phosphokinase (CK), and serum potassium.

A “myoglobinaemia” or crush injury regimen should be instituted until CK or myoglobin levels normalise. Patient will need good (large bore) Venous line, CVP and urinary catheter for monitoring.

The central plan of the regimen is forced saline diuresis with 2-3ml/ kg TBW/ hr normal saline.

This may be supplemented by Na 50m Eq per liter of saline and /or mannitol 2-3g/kg/hr for maximum 250g.

Care must be taken not to put patient into pulmonary oedema especial in presence of relative oliguria.

17.7.1 Management of Reperfusion Injury

Reperfusion injury refers to systemic circulatory collapse following re-establishment of arterial blood supply after a prolonged episode of acute arterial blood flow occlusion.

The principal scenarios are traumatic acute ischaemia of the limbs, compartment syndrome, and mesenteric vascular occlusion from volvulus or strangulated hernia.

The primary management of reperfusion injury is to anticipate and avoid it.

Liberal fasciotomy policy should be practised after re-establishing arterial blood flow to the limb.

Patient must be preloaded with IV fluids as in myoglobinaemia crush injury regimen and have good urine output before reperfusion is established.

In strangulated bowel cases including volvulus-necrotic bowel should be resected without detorsion to prevent reperfusion injury.

17.8 Management of the Diabetic Surgical Patient

Emergency Management of Surgical Patients with diabetic Keto-Acidosis and sepsis needs surgery. Diabetic control is nearly impossible during active sepsis; likewise sepsis control is not possible without diabetes control. Therefore both endpoints must be aggressively pursued.

Emergency Diabetes Control should besought:

- Add 20 Units insulin to mixture to 200ml normal saline. It is recommended that you use 20ml albumin to seal the plastic Vaculitor to avoid insulin being adsorbed to the plastic container. This is not necessary if glass bottles are used

for infusion.

- Run in IV at 20 micro drops/minute (paediatric drip set)
- Check blood sugar every 20 minutes.
- When glucose is 11 or less stop the insulin infusion and give 5% Dextrose/ Saline and put patient on blood sugar sliding scale to maintain glycaemia ≤ 11

Management of Elective Diabetic Surgical Case.

Attempt to get diabetic control before surgery either by oral hypoglycaemics or insulin.
Target RBS ≤ 11 (check).

On the eve of the elective operation keep NPO and put patient on 5% Dextrose/ Saline and blood glucose sliding insulin scale with target of ≤ 11 . Omit morning dose of hypoglycaemic agent. Diabetic should be scheduled higher up on the elective operation slate.

Post-operatively continue with 5% D/S and sliding scale until taking full oral feeds then revert to pre-op diabetic regimen with sliding scale insulin cover

NB Regular glucose levels testing is mandatory post-op since hypoglycaemic coma can set in insidiously in patients still recovering from anaesthetics.

17.9 Management of Gastric Outlet Obstruction(GOO)

Most adult patients presenting with GOO have peptic ulcer disease.

Management goals of GOO are

- 1) Resuscitation and correction of electrolyte and metabolic derangement
- 2) Diagnosis of underlying cause
- 3) Treatment of the cause

- 1) Patients with GOO present with vomiting which results in electrolyte and metabolic derangement viz dehydration, hypokalaemic, hyponatraemia, hypochloraemia, uraemia and alkalosis.

These need urgent correction –Normal Saline alone should suffice in most patients. If hypokalaemia is significant or is associated with ECG changes of depressed or inverted ST segment or prolonged QRS complex (check) careful KCl infusion via a **peripheral IV** route will be necessary.

Commence NGT suction to stop vomiting and aspiration.

Once resuscitated a source of Calories should be added including TPN when indicated.

- 2) Early diagnosis of the cause must be pursued with urgent upper GI endoscopy. Patient must therefore have gastric lavage to clear out all food debris from the stomach.
- 3) If peptic ulcer is diagnosed a dose of H₂-receptor blocker intravenously is prescribed e.g. Cimetidine 300mg 8 hourly (adjust for renal function) or IV PPI eg Pantoloc 40mg IV daily. Most ulcers even chronic ones have an acute inflammatory component which

should settle with acid suppression.

After 10-14 days a repeat gastroscopy is done to assess progress. If still obstructed balloon dilatation or surgical pyloroplasty should be considered.

Obstructing neoplastic disease should be treated on its merits.

16.10 Intercostal Drain Management for Trauma

Management of ICD for acute trauma is simple and straight forward and is as follows.

- 1) Always have the current Chest X-Ray both PA and Lat projections when inserting an ICD.
- 2) Whatever the indication the optimum place is the same at 4/5 intercostal space at anterior axillary line as described in protocol, unless the fluid (air or blood) is loculated which case the locule should be intubated directly. ICD should drain the intended fluid freely if correctly placed. If not review the CXR and indications for insertion and make sure it is in correct side and place! **No check CXR is necessary after ICD insertion.**
- 3) In order to expedite lung expansion and quick drainage of fluid via ICD, aggressive chest physiotherapy must be prescribed. If the patient is fully mobile he should go up a flight of stairs a few times or otherwise must walk to and fro to encourage full lung expansion. Make sure patient is receiving adequate analgesia.
- 4) If the ICD continues to bubble for an extended period a bronchopleural "fistula" must be suspected and excluded. Another possible cause could be direct lung parenchyma intubation. In such a case ICD should be removed and a repeat CXR taken. If pneumothorax is still present a fresh ICD should be inserted preferably through different site (fresh incision).
- 5) ICD should be kept as long as the fluid to be removed still drains. When it stops draining (i.e. bubbling or draining blood) it should be removed and a check CXR taken to ascertain satisfactory result before discharge
- 6) Bronchopleural "fistula" is managed by low pressure high volume pump attached to the underwater ICD system.
- 7) Get the patient back for review within 7 days to clinically confirm maintained lung expansion and to exclude sepsis/emphysema.

NB Only 2 chest CXR are usually necessary in uncomplicated chest trauma, one diagnostic pre-ICD insertion and 2nd post-ICD removal to check complete resolution.

17.11 Management of Bleeding Oesophageal Varices

Bleeding varices are a life-threatening event-up to 1/3 of patients die during a given admission. The objective is to resuscitate, stop active bleeding, diagnose, and prophylaxis against further bleeding.

1. Resuscitation

- Fluid resuscitation, preferably with blood component products
- Use somatostatin analogue treatment e.g. octreotide 100 mcg 8hrly subcut only if diagnosis is known

- If bleeding continues use Sengstaken-Blakemore tube
2. Emergency diagnosis
 - Early diagnosis is mandatory Emergency upper GI endoscopy if bleeding continues otherwise within 24 hrs. Banding or sclerotherapy should be performed.
 3. Stem Active Bleeding before endoscopy if necessary
 - Early stem of active bleeding is essential
 - If torrential bleeding with shock use Sengstake-Blakemore tube until stabilised.
 - If all else fails to stem the bleeding consider an oesophageal transection procedure. This automatically eradicates varices
 - Once patient is stabilised start varix extirpation programme with either band ligation or sclerotherapy
 4. Prophylaxis against further bleeding:

If the varices are small use long-term B-blocker otherwise complete varix extirpation programme

 - Regular elective re-endoscopy and further variceal extirpation if still present
 - Consider elective “partial” portosystemic shunt in selected case with good Child– Pugh score and presinusoidal portal block e.g. schistosomal periportal fibrosis or portal thrombosis

17.12 Wound Management

Proper wound management is important to surgeons since their craft and management tools involve wounding.

The principal principle in wound management involves **MOIST WOUND HEALING CARE** ie the wound must be cared moist. The ideal wound dressing should have the following characteristics:

1. Keep wound moist
2. Allow perspiration
3. Keep microbes out of the wound
4. Absorb excess wound exudate
5. Keep wound normothermic
6. Must not cause trauma on removal
7. Protect against further trauma

Best healing wound is a surgically incised wound or is a surgically clean at least
In practice wounds differ and can fall in the following categories:

17.12.1 CLASSIFICATION OF WOUNDS

Incised
Laceration
Abrasion
Partial or Full Thickness
Acute or Chronic
Clean Contaminated or Septic

17.12.2 LOCAL FACTORS THAT AFFECT WOUND HEALING

- Ischaemia - reduced arterial perfusion
- venous stasis

- smoking
- radiation
- oedema (\uparrow compartment P°)
- constant compression pressure
- Infection
 - bacterial
 - fungal
 - parasitic
- Foreign Body
- Topical Steroids

17.12.3 **SYSTEMIC FACTORS THAT AFFECT WOUND HEALING**

General Malnutrition

- Specific
- Micro Nutrient Deficiencies
 - Vit A & C
 - Minerals, eg Cu, Se

Immunosuppression

Diabetes Mellitus

Collagen Disorders

- Marfans
- Collagen vascular disorders

Systemic Infection

17.12.4 **ASSESSMENT OF THE WOUND**

- Assess general condition of patient
- Assess local wound
 - length, breadth and depth
 - cleanliness or otherwise
 - vitality of tissues
 - infection and extent
 - surrounding tissues

17.12.5 **MANAGEMENT PLAN**

Optimise Systemic Condition

- nutrition
- medication
- oxygenation
- diabetic control
- immune suppression status
- infection

Rational local treatment

17.12.6 **GOALS OF LOCAL WOUND TREATMENT**

- Convert to surgically clean wound
- Debride necrotic tissue
- Treat / prevent local infection
- Protect surrounding tissue
- Protect wound against trauma eg with splints
- Absorb excess exudate
- Drain excess fluid e.g. blood or pus

- 17.12.7 **DECONTAMINATION OF WOUNDS**
- Copious irrigation and scrubbing of contaminated wound eg after MVA
 - Diversion of excreta eg colostomy
 - Control fistula effluent or excess exudate eg use wound management bag or Vacuum Assisted Wound Care System
- 17.12.8 **WOUND DEBRIDEMENT**
- Mechanical or surgical
 - Chemical eg aserbine
 - Autolytic (moist dressing)
- 16.12.9 **ANTISEPTIC WOUND TREATMENT**
- **Do not** put into a wound that which you would not put into **your own eye**
 - Inorganic halides and alcohols eg chloride and iodine based antiseptics are **banned**
 - Organic antiseptic at **correct** strength eg Povidone Iodine, Chlorhexidine can be used
- 17.12.10 **PROPHYLAXIS AGAINST INFECTION**
 General Antisepsis
 Antimicrobial Application
- local
 - systemic
- Choice of antimicrobial therapy is based on predicted or proven infective agent(s)
- 17.12.11 **MOIST WOUND CARE**
Moist wounds heal faster than dry wounds
- Dryness dessicates inflammatory cells and new epithelium
 - Moist healing accelerates inflammatory process
 - Epithelial cells migrate easily across moist wound surface
 - Moist environment enables proteolyses of dead tissue
- Caveat: Guard against maceration of normal tissues
- Dry dressing** removes new epithelium on changing or removal
- 17.12.12 **CLASSES OF WOUND DRESSINGS**
- Films eg Opsite, Tegaderm-minic skin, used for fresh dry wounds
 - Hydrocolloids eg Granuflex, Comfeel - absorbant and debrides by autolysis-used in any wound
 - Hydrogels eg Intrasite gel, Elastogel - creates moist environment but low absorbency used for non-exudative wounds
 - Foams eg Allevyn - high absorbancy and debrides, used in sloughy wounds
 - Impregnates eg Adaptic - impregnated with moisturizer or antimicrobial, promotes moist healing or antimicrobial activity, used in partial thickness wounds with minimal exudate
 - Absorptive powders or pastes eg Hydrogran - high absorbency and debrides used in chronic wounds with copious exudate or slough

- Biologic dressing e.g. natural skin, bio-engineered skin, animal skin (pig) or amniotic membrane . Provides natural cover-used for large burns
- Wound management bag e.g. Holister – oversize “stoma” bag used to collect fistula or high volume exudate
- Vacuum Assisted Wound Care System – low vacuum assisted wound management removes excess fluid e.g. blood, fistula effluent. Helps bring wound edges together. Stimulates inflammatory response

17.12.13 **MONITORING OF WOUND CARE**

Could care hinder healing - YES

- frequent changes of dressing
- inappropriate dressing material
- Inappropriate antiseptic
- dry dressing
- too frequent wound inspection could hinder wound healing

17.12.14 **SUMMARY: SCIENTIFIC WOUND CARE SHOULD BE BASED ON PATHOPHYSIOLOGY**

ASSESS WOUND QUALITY

Classify wound

Assess local tissue health, perfusion and sepsis

Correct abnormalities and optimise local tissues

Select appropriate local wound Management strategem

Select most suitable dressing

ASSESS PATIENT HEALTH QUALITY

General health status esp O₂ carrying capacity

Nutritional status

Immunological status esp HIV/AIDS, DM

Correct abnormalities and optimise general health

Remember!

▪ DON'TS

- Do not apply to wound what you wouldn't apply to your own eyes e.g. No eusol, mercurochrome, gentian violet, hydrogen peroxide or in organic iodine, potassium permanganate
- Do not desiccate the wound
- Do not apply dry dressing **NB paraffin gauze becomes a dry dressing after couple of days**

▪ DO'S

- Apply moist wound care dressing
- Inspect wound would only if there is excessive pain or otherwise unexplained pyrexia
- Only changed dressing if excessively soiled or saturated with exudate.

17.13 **Bite Wounds**

All bite wounds are contaminated and can result in serious infection or the transfer of systemic microbes. The most common bites are inflicted by dogs, cats and humans. Correct management of such wounds is necessary to prevent serious consequences.

The organisms that cause wound sepsis include aerobes such as pasteurella, staphylococcus, neisseria, corynebacterium and moraxella, and anaerobes such as fusobacterium, bacteroides and peptostreptococcus. Infection is usually polymicrobial.

Wounds must be thoroughly cleaned and copiously irrigated in the emergency department. Minor debridement and cleaning can be done under local anaesthetic. Puncture wounds must be irrigated in the depth. Major wounds and those of the hands must be cleaned and debrided under general anaesthetic. Bites to the hand commonly involve joints and tendons and can lead to serious sequelae. Swabs for MCS should be taken from wounds displaying any signs of sepsis and those presenting late.

In general bite wounds should not be sutured primarily. Wounds of the hand should be allowed to heal by secondary infection. Facial wounds can be sutured primarily with suitable antibiotic coverage. All other wounds should be sutured secondarily after 24-48 hours.

Antibiotics should be prescribed in the more serious wounds, those presenting late and those sutured primarily. The most appropriate antibiotic is co-amoxiclav. For penicillin-allergic patients co-trimoxazole or fluoroquinolones can be used.

17.14 Rabies

Rabies is transmitted by the bite of an infected animal. Human disease is almost universally fatal. Rabies can be prevented after a bite by a rabid animal by appropriate immunization (post-exposure prophylaxis). Ninety percent of cases are due to dog bites.

Post-exposure vaccination should be administered in specific circumstances only:

- Bite by known rabid animal.
- Bite by an animal that develops rabies after 10 days of confinement
- Bite by an animal suspected of having rabies: aberrant behaviour such as domestic pet becoming inappropriately vicious, wild animal inappropriately docile, nocturnal animal roaming during daytime, unprovoked bite in an area where rabies is currently prevalent
- Get certificate of dog vaccination or otherwise, if the dog is a stray, get it hunted down and examined for rabies (must be killed and its brain examined)

Management:

1. The wound must be thoroughly cleaned with water and antiseptic soap. Deep wounds must be irrigated.
2. Administer vaccine when indicated to patients not previously vaccinated and arrange for a complete vaccination course. A booster should be administered to previously vaccinated patients.
3. Administer 20 IU/kg body weight of human or 40 IU/kg of equine rabies immunoglobulin. Inject as much as possible around the bite wound and the rest intramuscularly at a site remote from the wound and the vaccination.

17.15 Necrotising soft tissue infections

These infections have serious implications as they can lead to severe morbidity and even death in up to 30-40%. The infections are usually polymicrobial, including anaerobes, but can be due to a single organism such as clostridium perfringens (gas gangrene) or group A streptococcus.

It is important to recognise these infections because they require aggressive antibiotic and surgical treatment. They occur more readily in diabetics, patients receiving cancer therapy, or immunosuppressed patients. They can occur at any site in the body but typical sites are the peri-urethral perineum (Fournier's gangrene), peri-anal and the abdominal wall. They develop in deep anaerobic conditions including penetrating wounds.

The typical clinical picture is not always present. The patient is usually toxic and tachycardic and may be confused. Pain may be out of proportion to what is found in the affected area, especially in case of a deep wound. Gray watery fluid may drain from a wound. The skin is typically indurated, copper coloured, and brawny. Blebs and crepitus will be present.

Management

1. Resuscitate.
2. Take microbiology specimens-tissue or fluid rather than swabs. Request the result of urgent gram stains for clostridium perfringens (gram + rods). Anaerobic specimens should also be taken.
3. Broad spectrum antibiotics should be started empirically. In case of gas gangrene (Cl perfringens) high doses of penicillin should be administered.
4. Schedule urgent surgery. This entails aggressive debridement, drainage, wound cleaning and open wound management. The patient must be booked for further surgical debridements until the wound is clean. Follow the motto: redebride until there is no necrosis or no patient.