

NAME:

ORIENTATION TO THE OPERATING THEATRE

Student nurses

**COMPETENCY,
BEHAVIOURAL OBJECTIVES
And
SKILL ACQUISITION**



CONTENTS

Map	3
General Information	4
Theatre Nursing	7
Multi-disciplinary team	9
Surgical Safety	10
Objectives	12
Patient positioning	13
Orientation skills/ competencies	16
Surgical terminology	27
Asepsis	28

GENERAL INFORMATION

The Operating Theatre Service provides tertiary level surgery, performing over 19,000 surgical procedures during a year to the people living in the greater Wellington region (approximately 15,000 patients). The catchment areas for the Wellington region tertiary services generally include up to the Hawkes Bay (Napier and Hastings), across to Taupo and New Plymouth, and as far south as Nelson and Golden Bay, and the West Coast of the South Island (although patients may get referred to other centres). C&C DHB is also a tertiary trauma centre servicing the above mentioned areas.

Specialties within the Operating Theatre Service include:

- Orthopaedics
- Neurosurgery
- Acute surgery (24 hours)
- Ophthalmology
- Peripheral Vascular
- Renal
- Urology
- General
- Otorhinolaryngology
- Gynaecology
- Obstetrics
- Paediatrics
- Cardiothoracic
- Oncology and Haematology.

Day one

On your first day of your placement to the Operating Theatres please meet at 0800 at the Surgical Admissions Unit (SAU), Level 3, where you will be met by one of the Clinical Liaison Nurses (CLNs) or the Clinical Nurse Educator.

You will get a copy of this workbook so no need to print but it is expected that you would have pre-read this workbook and so have some knowledge around asepsis and roles in the Operating Theatre.

You should already have your roster but if not, email the CLN (see below). You can wear whatever you like to work as you will change into scrubs every day and don't forget to bring your student ID badge, you are required to carry this at all times whilst on duty.

No lockers are provided. Any valuables that can't be carried on your person will be in an unsecured environment.

Contacts:

CLN: Margaret Davidson.

Reviewed by Sara Robinson (CNE) August 2016
F.Day-Paku

Margaret.davidson@ccdb.org.nz

or

CNE: Sara Robinson

Sara.robinson@ccdhb.org.nz

0272677541

Car Parks:

If you are travelling to work in your own car you can try parking in the surrounding streets or within the hospital grounds. To park within certain areas on the hospital grounds a staff parking permit is required and there are public car parks on the grounds too.

Attire:

Scrubs are provided and are not to be worn out of the department. There are overshoes (which are a disposable covering for your outside shoes) available for your every-day use or you can bring your own Theatre shoes, these must be new and dedicated to theatre only though. The shoe needs to provide protection, must be fully enclosed and made of material to permit proper cleaning.

Hours of Work:

Operating Theatre Services provide a multidisciplinary; multi surgical specialty, 24 hour service and nursing staff are rostered to cover these hours. You will be attached to a preceptor and follow his or her shift patterns. This is likely to include afternoon shifts and weekends.

Shift Times:

There are a variety of shift times available. The most common are 0745-1615, 0700-1530 with afternoon shifts 1430-2300 or 1330-2200. Your roster will be discussed with you.

Unfit for duty.

If you are sick and unable to come to work: Notify;

Sara Robinson: Clinical Nurse Educator 0272677541

ORIENTATION AND PRECEPTORS

We provide an introduction and comprehensive orientation programme for Nursing Students. Students will be allocated a preceptor during their placement. It is **your** responsibility to ensure the nurse you are working with is aware of your objectives for the day/week. You must provide evaluations and/or other paperwork to your preceptor in a timely fashion (i.e. not on the due date!!). Your preceptor will not complete any evaluations if you give it to them on your last days in the unit.

Perioperative nursing tutorials are organised for new staff, when these are running nursing students are invited to attend.

As part of your perioperative nursing placement you will gain some clinical experience working along side the patient reception nurse, the anaesthetic technicians, Post Anaesthetic Care Unit (PACU) and Surgical Admissions Unit (SAU).

Dedicated Educational Unit

The operating Theatres is part of a joint Perioperative DEU initiative. The Dedicated Education Unit (DEU) model of clinical teaching and learning in Wellington is a partnership between organisations, the education provider Massey University (Massey) and Whitireia New Zealand (Whitireia) and Capital and Coast District Health Board. Collaboration allows practice areas to provide a more supportive clinical learning and teaching environment for students. DEU's are dedicated to supporting nursing students on clinical placement encouraging incidental and intentional learning modes, and peer teaching. The DEU is based on an Australian model and replaces the Preceptorship model to focus on student learning and curriculum integration.

Preceptor:

Your Preceptor(s) will work alongside you to support your practice and learning during your placement. You will work with your preceptor in a shared care model for your orientation period and will spend time with the CLN for feedback, support and assessments.

Clinical Liaison Nurse

Margaret is the Dedicated Education Unit Clinical liaison nurse (CLN) for the Operating Theatres and your main clinical contact. She will provide you with some structured clinical learning during your clinical placement. Margaret has an excellent understanding of your programme and academic study and will work alongside your academic tutors and yourself to support your learning needs and complete formative and summative assessments during your placement.

CCDHB expectations:



The DHB expects all employees to act honestly, conscientiously, reasonably and in good faith at all times, and to have regard to the interests of the DHBs, their colleagues, the DHB's patients and the wider community.

Maintaining;

- **Honesty and Integrity**
- **Loyalty, good faith and professionalism**
- **Confidentiality**

THEATRE NURSING

There are three roles within the 'Theatre Nurse's job description. All nurses are required to be familiar with all roles.

Role of the Anaesthetic Nurse

This theatre nurse's role is vital to ensure that patient safety is maintained at all times. The Anaesthetic nurse's job is to assess the patient so that a comprehensive plan of care can be formed. This nurse ensures that holistic nursing care is provided for each patient and their families / Whanau.

The Anaesthetic nurse is in an excellent position to provide education and general information to patients and families / Whanau. This can range from information regarding their surgery to the promotion of a healthy lifestyle.

The Anaesthetic nurse initiates the Health Quality and Safety Commission (HQSC) surgical safety checklist, working along side the multi disciplinary team to ensure this process continues intra-operatively. During the peri-operative period all assessments and events should be clearly and accurately documented.

Knowledge of the types and effects of anaesthesia, the pharmacokinetics of drugs and equipment used is necessary so that assistance can be provided to the Anaesthetist and Anaesthetic Technician.

The Anaesthetic nurse remains with the patient during intubation and extubation and ensures that the patient is safely transferred to the theatre trolley/ bed.

Each member of the team is responsible for correctly and safely positioning of the patient. The majority of ACC claims relating to surgery are for damage to nerves, with subsequent paralysis and paraesthesia, sustained during long periods of immobility under anaesthesia, so protection of these areas is extremely important. Bio-mechanical knowledge is also necessary to avoid joint injury.

At the completion of the procedure, the Anaesthetic nurse evaluates the patient for any injury or harm, the result of this assessment is documented in the perioperative clinical care plan.

Role of the Scrub Nurse

The scrub nurse works in partnership with the surgeon. Excellent communication skills and knowledge of the surgery and equipment ensures confidence to participate in the surgical procedure.

The scrub nurse must anticipate, plan and respond to the needs of the surgeon and other team members. As well as having the ability to work under pressure, a good sense of humour, a keen sense of responsibility and concern for accuracy in performing all duties is encouraged.

The scrub nurse works in partnership with the circulating nurse in monitoring asepsis, equipment and supplies.

The scrub nurse needs to be pro active, knowledgeable and be able to respond to constant changing situations in the operating room environment.

It is essential for the scrub nurse to have a surgical conscience and have the ability to report if any discrepancy has been identified. This includes situations concerning any breaks in asepsis or missing swabs.

The scrub Nurse also has to have access to a good recipe and have the ability to bake muffins and /or chocolate cakes if equipment is left behind in the operating room i.e. leaving behind light handles.

Role of the Circulating Nurse

The Circulating Nurse ensures the whole Operating team runs effectively and that patient safety is maintained at all times during the peri-operative journey. The circulating nurse encompasses all three nursing roles and has the overall responsibility in ensuring the team provides quality care. The circulating nurse is the primary coordinator and promotes advocacy for the patient during their care within the peri-operative environment.

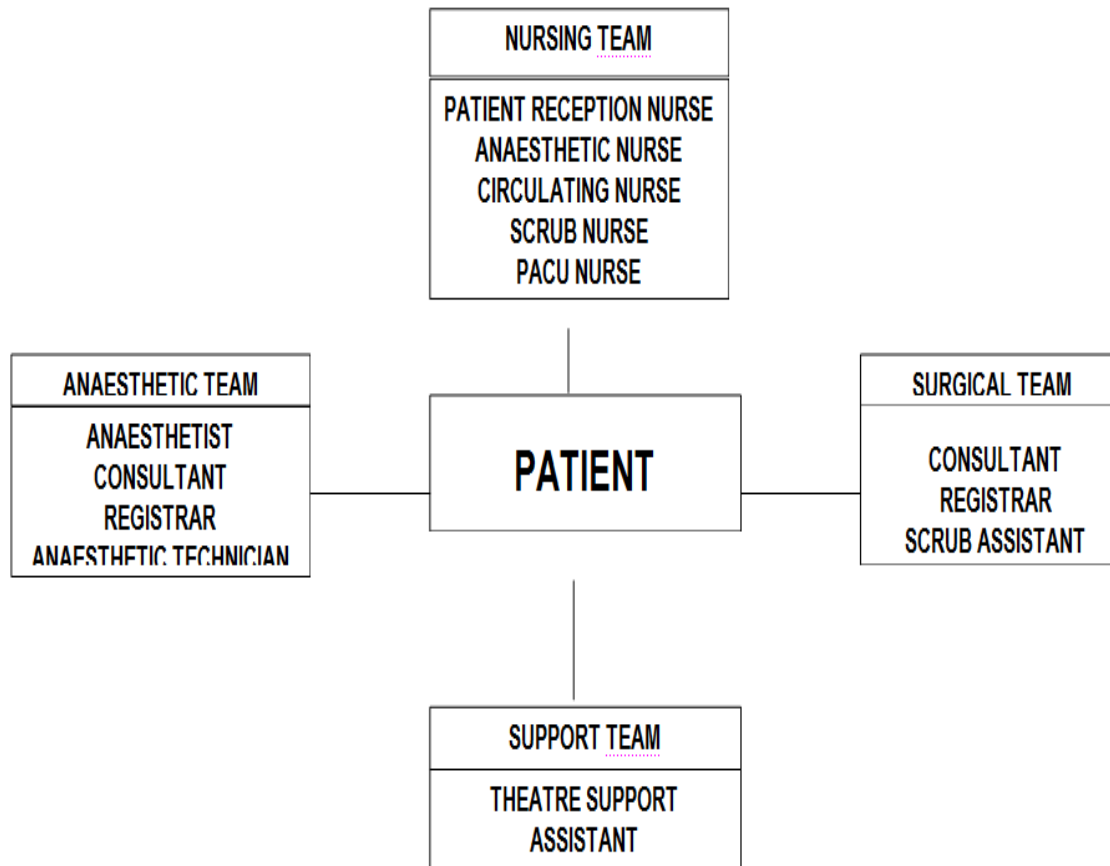
The Circulating Nurse role is one of leadership, ensuring all members of the multi-disciplinary teams provide continuity of care. They are responsible for the smooth running of the theatre list.

The Circulating nurse works in partnership with the scrub nurse by setting up for the surgical procedure and performing “the count”. This is a continuous process, which provides support for the surgical team. This ensures a robust process is followed correctly and reduces the risk of harm and injury to patients. The circulating nurse has to demonstrate a strong sense of surgical conscience to instantly correct any personnel who do not adhere to best practice.

The circulating nurse is responsible for assisting any other members of the surgical team. This includes the knowledge of legal requirements, departmental and organisational policies and management in emergency situations.

The circulating nurse is responsible that all documentation is completed correctly by all members of the multidisciplinary team. This role requires constant flexibility in order to meet the unexpected and constant challenging environment of an operating room.

Operating Theatre Multidisciplinary Team



SURGICAL SAFETY

Surgical checklists, briefings and debriefs are being used in theatres worldwide. The aim of these tools as defined by the Health Quality and Safety Commission NZ is to improve the quality and safety of health care services provided to patients undergoing surgery and to help prevent adverse events.

Start-of-list briefing

1

Introductions

Ensure all team members are present and have introduced themselves

Indicate that debriefing will take place at the end of the list

2

List outline

Provide an overview of:

- The cases on the list
- Anticipated duration
- Any changes or modifications to list
- Any uncertainties, and identify ways of updating information during the day
- Any other patient information not already noted on the list/notes

3

Case events

Review the details for each case:

- Patient name
- Planned procedure
- Estimated duration

Surgical plan:

- Key points and any specific requirements not already identified
- Blood loss risk
- Potential difficulties and contingency plans
- Confirm specific equipment requirements

Anaesthetic plan:

- Type of anaesthetic
- Any issues or concerns
- Difficult airway or aspiration risk

Repeat Step 3 for every case

4

Staffing & questions

Confirm everyone is clear on their roles and responsibilities

Ask team if they have any questions or concerns

End-of-list debriefing

Wrap-up

Ensure all members of the operating team are present



What happened?

What went well? What did not go well?



Why?



Suggestions for improvement

What can we do better next time?

Surgical Safety Checklist Posters are available in each theatre.

Surgical safety checklist

1

Sign in

Confirm surgeon available
Before induction of anaesthesia,
confirm with patient:

- Identity
- Site and side
- Procedure
- Consent

Site marked or not applicable

Does the patient have:

Known allergies?

Difficult airway or
aspiration risk?

If yes, is equipment/
assistance available?

Risk of >500 ml blood loss
recorded

(7 ml/kg in children)?

If yes, are adequate
intravenous access and
fluids planned?

Anaesthesia safety checklist
completed

Check and confirm prosthesis/
special equipment to be used

2

Time out

Before an incision, confirm all team members have
introduced themselves by name and role

Surgeon, anaesthetist, and nurse verbally confirm:

- Patient
- Site and side
- Procedure
- Consent
- Any known allergies

Anticipated critical events

Surgeon reviews:

Critical or unexpected steps, operative duration,
anticipated blood loss?

Anaesthesia team reviews:

Patient specific concerns?

Has the ASA score been recorded?

Nursing team reviews:

Has sterility (including indicator results)
been confirmed?

Are there equipment issues or concerns?

Has antibiotic prophylaxis been given within the
last 60 minutes?

Has the plan for VTE prophylaxis during the
operation been carried out?

Is essential imaging displayed?

3

Sign out

Verbally confirm with the team after final count:

- The name of the procedure recorded
- That instrument, needle, sponge and other counts are correct
- How the specimen is labelled (including patient name)
- The plan for ongoing VTE prophylaxis
- Whether there are any equipment problems to be addressed
- Postoperative concerns/plan for recovery and management of this patient

OBJECTIVES FOR YOUR CLINICAL PLACEMENT

IN THE OPERATING THEATRES

- To become familiar with the principles of aseptic technique within the operating theatre to minimise the patient's risk of exposure to micro organisms
- To describe the surgical attire you are required to wear within different areas of the operating theatre environment.
- You will be able to describe the principles of safe patient positioning by the time you finish your placement
- Describe practices that are taken to reduce the risk of exposure to blood borne pathogens in the operating theatre
- To become familiar with the traffic patterns used within the operating theatre environment
- To be able to scrub, gown and glove for a surgical procedure
- By the end of your clinical placement you will know what the different nursing roles are within the perioperative environment
- By the end of your clinical placement you will be able to make a comprehensive patient assessment and develop a care plan to ensure the patient has a safe perioperative journey
- To know how to assemble and use the different suction units available within the operating theatre
- To be able to safely use the equipment used for electro surgery within the operating theatre
- By the end of your placement you will be able to describe the anatomy of a surgical procedure related to your clinical placement.
- By the end of your clinical placement you will have a basic understanding of at least two minor surgical procedures relevant to your speciality

Patient positioning within the operating theatre

Supine



With thanks to Fiona Day-Paku & Jenny Kendall

Capital & Coast
District Health Board
OHOD 01 77 000 0000

Lithotomy



With thanks to Fiona Day-Paku & Jenny Kendall



Lloyd Davis

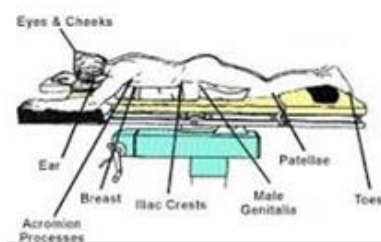


With thanks to Fiona Day-Paku & Jenny Kendall

Wilson frame



Prone



Taken from Cram.com
Retrieved from
https://www.google.co.nz/search?q=prone+positioning&safe=strict&source=ms&btn=ach&sa=X&ved=0ahUKEzjgYTynt7ZAmNDV6Qo4YFkAe0Q_AUICgB&ble=1920&btn=97&btn=4R0yypBt42YM

Lateral



• With thanks to Fiona Day-Paku & Jenny Kendall

Gel positioning pads



ORIENTATION: SKILLS AND COMPETENCIES

The following checklists are to be used to guide acquisition of skills and competencies relating to operating room nursing practice. There is not a requirement to achieve all the listed skills.

Used as a guideline they will assist you in understanding perioperative speciality practice.

You will be supported in achieving as much of these skills that are possible within the limitations of the length of your clinical experience.

There is a worksheet at the back of this book to help you with your learning.

The skill and competency check lists are grouped as listed.

- Physical environment
- Crisis intervention and management
- Nursing roles
- Observation worksheet
- Evaluation form

I hope you enjoy your clinical learning experience with us.

PHYSICAL ENVIRONMENT

Finding your way around the department in your first week can be challenging. Make sure you become familiar with the following area's.

Area	Tick when you know where the area is
Inventory store	<input type="checkbox"/>
Pharmacy store	<input type="checkbox"/>
Patient Reception/ Acute holding Bay	<input type="checkbox"/>
OR control	<input type="checkbox"/>
Operating rooms	<input type="checkbox"/>
Clean up room	<input type="checkbox"/>
Sterile stock rooms	<input type="checkbox"/>
PACU	<input type="checkbox"/>
Surgical Admissions	<input type="checkbox"/>
North and South Anaesthetic Bays	<input type="checkbox"/>
Sterile Services	<input type="checkbox"/>
Equipment Room	<input type="checkbox"/>
Change Room	<input type="checkbox"/>
Tea Room	<input type="checkbox"/>

STERILE STOCK ROOMS

Skill/ Competency	Completed
Verbalises what this area is used for	<input type="checkbox"/>
Is familiar with the contents of this room	<input type="checkbox"/>
Sets up a trolley for a case	<input type="checkbox"/>
Inspects wrap for any tears or holes	<input type="checkbox"/>

HEALTH AND SAFETY

Skill/Competency	Completed
Knows the location of the defib/ difficult intubation trolley	<input type="checkbox"/>
Knows where the health and safety manual is and who the Theatre H&S Reps are	<input type="checkbox"/>
Is able to locate the emergency call bell in each Theatre	<input type="checkbox"/>
Knows the location fire extinguishers and fire alarm activation systems. (call points)	
Knows the correct process for evacuation fire/earthquake	
Is aware of the number to ring for emergencies	<input type="checkbox"/>

LIGHTING SYSTEMS

Skill/ Competency	Completed
Knows location of all light switches in the operating room	<input type="checkbox"/>
Knows location of main operating light switch	<input type="checkbox"/>

SUCTION

Skill/ Competency	Completed
Can connect the suction tubing to the suction outlet and turn it on.	<input type="checkbox"/>

COUNTS

Skill/ Competency	Completed
Is able to verbalise the importance of the count	<input type="checkbox"/>
Is able to contribute to the accurate recording of the count and knows the method of adding to the count	<input type="checkbox"/>
Demonstrates in practice adherence to the standard for counting	<input type="checkbox"/>
Understands why rubbish is not removed during a procedure	<input type="checkbox"/>

CLEAN UP AND DISPOSAL AREAS

Skill/ Competency	Completed
Demonstrates in practice safe standards for the disposal of linen, rubbish and sharps	<input type="checkbox"/>
Demonstrates how to safely prepare dirty instrument trolley to be returned to Sterile Services.	<input type="checkbox"/>

ELECTRO SURGICAL UNITS

Skill/ Competency	Completed
-------------------	-----------

Under supervision demonstrates in practice safe electrosurgery management.	<input type="checkbox"/>
<ul style="list-style-type: none"> • Turn the electro surgical unit on • Able to set the machine to the surgeons preferred power settings • Adjust the power settings during a procedure 	
Under supervision safely applies the electro surgical dispersive pad	<input type="checkbox"/>

ASEPTIC TECHNIQUES

Skill/ Competency	Completed
Has an understanding of the standards for wearing surgical attire	<input type="checkbox"/>
Demonstrates in practice the correct way of handling and disposing of a surgical mask	<input type="checkbox"/>
Demonstrates the ability to open all sterile packages	<input type="checkbox"/>
Maintains the integrity of the sterile field throughout a procedure	<input type="checkbox"/>
Is aware of where to place an item which has fallen on the floor	<input type="checkbox"/>

SURGICAL SCRUB, GOWN AND GLOVING

Skill/ Competency	Completed
Demonstrates in practice a safe standard of gloving and gowning	<input type="checkbox"/>
Demonstrates an awareness of delineated areas of sterility when gowned and gloved.	<input type="checkbox"/>
Demonstrates a knowledge of infection control principles when removing and discarding gown, gloves and masks at the conclusion of the procedure	<input type="checkbox"/>

MALIGNANT HYPERTHERMIA

Skill/ Competency	
Finds out what malignant hyperthermia is	<input type="checkbox"/>

Locates the malignant hyperthermia box	<input type="checkbox"/>
--	--------------------------

PERIOPERATIVE NURSING ROLES

ANAESTHETIC NURSE

Skill/ Competency	Completed
Demonstrates the ability to communicate effectively developing rapport and trust with patients and their family members	<input type="checkbox"/>
Safely and consistently ensures accurate patient identification-	<input type="checkbox"/>
Demonstrates culturally safe care and works within the principles of the Treaty of Waitangi	<input type="checkbox"/>
Verbalises understanding of issues regarding consent and the health and disability act.	<input type="checkbox"/>
Accurately completes all necessary documentation.	<input type="checkbox"/>
Demonstrates the ability to communicate all relevant information to the appropriate personnel involved in the patients care.	<input type="checkbox"/>
Demonstrates the ability to plan for a patients care using the nursing process	<input type="checkbox"/>
Demonstrates under supervision safe patient positioning.	<input type="checkbox"/>
Demonstrates the insertion of an indwelling urinary catheter	<input type="checkbox"/>
Demonstrates clipping of a patients hair over the operative site	<input type="checkbox"/>

SCRUB NURSE

Skill/ Competency	Completed

Has a knowledge of the operative procedure and the aims of the surgery	<input type="checkbox"/>
Steps in the operative procedure	
Performs the count under supervision	<input type="checkbox"/>
Aware of the instrumentation that will be used for the procedure	<input type="checkbox"/>
Maintains the sterile field	<input type="checkbox"/>
Assists with skin preparation and application of the drapes.	<input type="checkbox"/>

CIRCULATING NURSE

Skill/ Competency	Completed
Aware of infection control principles	<input type="checkbox"/>
Has the ability to safely set up a theatre for a procedure.	<input type="checkbox"/>
Ensures all the equipment and supplies are in theatre.	<input type="checkbox"/>
Opens sterile packages for the scrub nurse	<input type="checkbox"/>
Demonstrates under supervision knowledge of how to count.	<input type="checkbox"/>
Assists with patient positioning	<input type="checkbox"/>
Understands the role of the TSA and delegates tasks under the direction of the registered nurse	<input type="checkbox"/>
Demonstrates communication skills within the multidisciplinary team	<input type="checkbox"/>
Under supervision completes handover to PACU staff nurse	<input type="checkbox"/>

ACUTE SURGERY

Skill/ Competency	Completed
Is aware of the acute booking form	<input type="checkbox"/>
Is aware of the category system for acute patients	<input type="checkbox"/>

PROFESSIONAL DEVELOPMENT

Skill/Competency	Completed
Reflects upon own practice and identifies learning needs	<input type="checkbox"/>
Demonstrates enthusiasm and willingness to share information with colleagues.	<input type="checkbox"/>
Attends in-service sessions	<input type="checkbox"/>

Perioperative nurses observation worksheet.

During your placement you may think that you are spending a lot of your time standing around watching what is going on.

While you are watching use this worksheet to give you some direction as to what to observe, this will encourage you to think about what is going on in theatre.

This worksheet will facilitate your learning about the nursing care the perioperative nurse performs while a patient is having a procedure done within the operating theatres.

Choose a surgical procedure and observe the role of the Anaesthetic Nurse, Scrub Nurse, and the Circulating Nurse.

1. Can you identify tasks that each of these nurses performed which enhanced patient care?

Anaesthetic Nurse

Scrub Nurse

Circulating Nurse

2. What was the operative procedure? Why did the patient require the surgery?

3. How many of the aseptic technique principles have you observed?

4. How was the theatre set up for the procedure?

5. What was counted and why?

6. What position was the patient placed in and what was used to protect the patient from injury?

7. Where did the nurse place the diathermy pad?

8. What tasks were done to ensure the patient was kept warm during the procedure

9. Why is it important to keep the patient warm?

10. What drugs did the anaesthetist use to give the patient a general anaesthetic?

11. How was the patient monitored during the operative procedure?

12. Listen to the patient handover between registered nurses, what information is being communicated.

Common Surgical Terminology

-ectomy	surgical excision of
-itis	inflammation of
-lysis	freeing of
-oscopy	examine an organ by viewing
-ostomy	creation of an opening
-otomy	cutting into
-pexy	fix or suture in place
-plasty	restorative or reconstructive procedure

arthro	joint
cardi	heart
cholecyst	gall bladder

col	colon
colpo	vagina
cranio	skull
cysto	urinary bladder
gastro	stomach
hepato	liver
hystero	uterus
jejun	second part of small intestine
nephro	kidney

Operations which you may come across

Appendectomy	appendix removal
Hysterectomy	uterus removal
Cholecystectomy	gallbladder removal
Tonsillectomy	tonsil removal
laparoscopy	visualisation of abdominal and female pelvic organs
Craniectomy	excision of skull
orchidopexy	fixation of testicle
Hemicolectomy	half of colon

Other common terms you may hear

ORIF	Open reduction internal fixation
THJR	Total Hip Joint Replacement
MUA	Manipulation under anaesthetic
TKJR	Total Knee joint replacement
EUA	Examination under anaesthetic
TURP	Trans urethral resection prostrate
AAA	Abdominal Aortic Aneurysm
D&C	Dilation and Curettage
ERPOC	Evacuation retained products of conception

BASIC ASEPTIC TECHNIQUE

An object or substance is considered sterile when it is completely free from living microorganisms and is incapable of producing any form of life. The basic principles of aseptic technique prevent contamination of the open wound, isolate the operative site from the surrounding unsterile physical environment, and create and maintain a sterile field in which surgery can be performed safely. Proper adherence to aseptic technique eliminates or minimizes modes and sources of contamination. Certain basic principles must be observed during surgery to provide a well-defined margin of safety for the patient.

1. ONLY STERILE ITEMS ARE USED WITHIN THE STERILE

FIELD.

All materials in contact with the wound and used within the sterile field must be sterile. The inadvertent use of unsterile items may introduce contaminants into the wound. When using or dispensing a sterile item, personnel must be assured that the item is sterile and will remain sterile until used. Items of doubtful sterility must be considered unsterile. Any item that falls on the floor or into any area of questionable cleanliness must be considered unsterile. The circulating nurse should check the package integrity, the expiration date, and the chemical process indicator before dispensing a sterile item.

2. A STERILE BARRIER MUST BE CONSIDERED CONTAMINATED AFTER IT HAS BEEN PENETRATED.

Integrity of sterile packages or items, including wrapped items, packages, gowns, and drapes, can be destroyed by perforation, puncture or strike through. If a hole occurs, a package becomes wet or is dropped it should be discarded immediately.

3. THE EDGES OF A STERILE PACKAGE OR CONTAINER ARE CONSIDERED CONTAMINATED AFTER IT IS OPENED.

Careful judgment must be used to maintain safety margins between sterile and non sterile boundaries to prevent accidental contamination of the sterile field. A sterile package should be opened from the far side first and the near side last. Any loose flaps should be secured so they do not spring back and contaminate the sterile contents.

The wrapper of small peel-back packages must be pulled back and the sterile contents within either flipped onto the sterile field or exposed away from the non sterile person and retrieved by the sterile scrub person who pulls the contents straight up and out of the wrapper. If the contents touch the edge of the package or the package tears during opening, it must be considered contaminated and discarded.

Larger packs may be opened on a separate table by opening first the back, then the front flaps, and then the side flaps. Care must be taken to walk around the pack, rather than reach over the sterile field.

After the cap has been removed from a container of sterile fluids, its entire contents must be poured or discarded. The solution receptacle should be placed close to the edge of the table or held by the scrub person. The circulating nurse should be careful not to splash any liquids or let it run down the sides of the container.

4. GOWNS ARE CONSIDERED STERILE ONLY IN FRONT FROM CHEST LEVEL TO TABLE LEVEL AND BELOW THE ELBOW TO GLOVE CUFF.

Gowns are considered completely sterile only in front, from chest level to table level. From below elbow to glove cuff. The neckline, the shoulders, and the area under the arms are areas of friction and are not considered sterile. The back of the gown is also considered non sterile because it cannot be observed by the scrubbed person.

Donning of the gown is done on another sterile surface other than the sterile field to avoid dripping water onto the sterile field. Stockinet cuffs are considered contaminated after being touched by the hands and must be covered by gloves. Gloved hands must be held at or above waist level and kept in sight at all times. Scrubbed persons must be careful to keep gloved hands away from the face and from under the axillary areas, as well as to keep their elbows close to their sides.

Any item that is dropped below the waist is considered contaminated and is discarded.

5. ONLY THE HORIZONTAL SURFACE OF A TABLE IS CONSIDERED STERILE.

The edges and sides of table drapes are considered non sterile because they are out of sight and cannot be monitored. When a sterile drape is unfolded, the part that drops below the table surface is not brought back up to table level. Scrubbed persons should not allow their hands to fall below the sterile field and any item that falls over the edge of the table is considered contaminated. Items that remain on the drapes during the surgical procedure are secured to prevent them from sliding below the level of the sterile field, such as cords and tubing.

6. STERILE PERSONS AND ITEMS TOUCH ONLY STERILE AREAS. NONSTERILE PERSONS OR ITEMS TOUCH ONLY NONSTERILE AREAS.

Surgical team members must be aware of sterile and non sterile items and areas in the OR and maintain a safety margin, either by space or by the use of an instrument for extension,

The patient is the center of the sterile field. All sterile equipment is grouped around the patient and within view of scrubbed personnel, who must stay as close as possible to and face the sterile field. Sterile team members maintain contact with the sterile field by wearing sterile gown and gloves.

Non sterile persons must maintain enough distance from the sterile field to prevent accidental contamination. Non sterile team members should not lean or reach over the sterile field and should never walk between two sterile fields. When contact between a scrubbed person with a non sterile person or item is necessary, such as during draping procedures, the sterile scrubbed person's gloves are protected by cuffing a portion of the sterile drape over the gloves, forming a barrier between the glove and the non sterile person or item

contacted.

When passing an item to the scrub nurse, the non sterile circulating nurse pulls the wrapper of items back over the hand so that only sterile surfaces are presented, making it possible for the sterile scrub person to touch only the sterile item. The circulating nurse never directly contacts the sterile field, but it is her or his responsibility to open sterile wrappers and packages for sterile team members.

7. MOVEMENT WITHIN OR AROUND THE STERILE FIELD MUST NOT CONTAMINATE THAT FIELD.

Movements and air currents must be kept to a minimum to avoid contamination of the sterile field. Establishing traffic patterns within and around the sterile field helps to prevent any spread of microorganisms.

The motions of the scrubbed team are from sterile to sterile areas and from non sterile to non sterile areas. For example, when two gowned persons must pass each other, it is done face to face, sterile to sterile areas, and back to back, non sterile to non sterile areas.

A sterile person should turn his or her back to a non sterile person or item when passing. A sterile person may ask a non sterile person to step aside to avoid risk of contamination.

8. ALL ITEMS AND AREAS OF DOUBTFUL STERILITY MUST BE CONSIDERED CONTAMINATED.

If the sterility of any item is in doubt, it should be discarded. Even though a sterile package may not appear to be damaged, for the safety of the patient it must be assumed to be contaminated.

Sterile fields should be prepared as close to the time of use as possible. The longer any sterile item is exposed to the environment, the greater is its chance for contamination. A sterile field left unattended should be considered contaminated, because there is no way to ensure sterility.

Sterile fields should not be covered, because removing the cover later allows a part of the cover that was below table level to be drawn up above the table.

Additionally, covered sterile fields are often left unobserved and it is important to monitor constantly all sterile areas and items for any possible contamination.