

# [The roper logan tierney model nursing essay](https://assignbuster.com/the-roper-logan-tierney-model-nursing-essay/)

The aim of this study is to demonstrate the care management that a nurse can provide to a patient who had Laparotomy and mesh repair of incarcerated incisional hernia. It also shows how the Roper- Logan- Tierney Model was utilized in assessing, planning, implementing, and evaluating patient’s care. The core of this care study is on infection and wound healing management which was identified as the patient’s main problem. According to NICE (2008), a minimum of 5 out of 100 surgical patients develop infection and that this covers almost a quarter of all infections acquired in a hospital. The patient’s name was altered to uphold confidentiality (NMC, 2008). In this study, health and social care policies affecting the patient care were also considered.

## PATIENT PROFILE

Mrs P is a 63 years old lady who was admitted due to symptoms of small bowel obstruction like vomiting, bloating and abdominal pain. She lives with her husband in a privately owned house who also has impaired mobility due to stroke. Mrs P weighs 111 kilograms, 5 feet 7 inches tall and body mass index of 38.

Previous medical history includes Chronic Kidney Disease Stage 2 (2008), Congestive Cardiac Failure (2007), leg cellulitis (2006), Essential Hypertension (2005), Primary repair of Incisional Hernia (1992), Type 2 Diabetes(1991), Repair of Umbilical Hernia(1985), Total Abdominal Hysterectomy NEC (1979) and Cholecystectomy (1976).

After series of examination, she was found to have incarcerated incisional hernia which was repaired with mesh on the emergency list. Post- operatively, she was admitted to ITU for ventilator support and post-op care. When she was stable, she was transferred in the ward and two weeks post- op she developed infection and her abdominal wound dehisced. Patient has to take several medications while in the hospital to help her recover. She had Augmentin (Co- amoxiclav) 625 mg via oral route three times a day, followed by tazocin (Piperacillin with Tazobactam) 4. 5 grams intravenously every 8 hours interval, Fragmin (Dalteparin) 7500 units once at 6 pm, senna (7. 5mg) two tablets in the evening, bisoprolol 10 mg once daily, furosemide 20 mg daily orally, ramipril 5mg daily orally, amlodipine 10 mg daily oral, paracetamol 1 gram 4-6 hourly oral, domperidone 10mg three times daily orally, insulin Glargine(Lantus) twice a day SC injection, Novorapid three times daily SC injcetion, and oxycodone hydrochloride (oxynorm) 10 milligrams every 4-6 hours orally when needed.

## PATHOPHYSIOLOGY

“ The development of an surgical site infection depends on contamination of the wound site at the end of a surgical procedure and specifically relates to the pathogenicity and inoculum of microorganisms present, balanced against the host’s immune response”(NICE, 2006). Typically, wound infection is caused by migration of patient’s normal flora to the wound site. Another way of surgical site being contaminated is being in contact with contaminated surgical equipments, environment, and hands of staffs. (NICE, 2006).

## ASSESSMENT

The Roper- Logan-Tierney Model of Nursing based on activities of living was used in planning the care of Mrs P which is a widely used model in practice areas in the UK(Roper et al 2000).

Maintaining a safe environment

Mrs P was alert and orientated however she is diabetic, hypertensive, uses eye glasses and obese. She has an infected wound that is oozing and painful, poorly healed, dehisced, abdominal wound. She has a urinary catheter in situ which can be a potential site of another infection.

Communicating

Patient can communicate effectively, her primary language is English, can hear and talk without any aids and difficulties, and very conversant but when it comes to her care she tends to stay quiet and just wait for her turn to be look at.

Breathing

Patient is at risk of developing chest infection due to decreased mobility and respiratory depression due to oxynorm medication. Patient has a respiratory rate of 15 breaths per minute, oxygen saturation of 98% on air, no shortness of breath noted, no signs of respiratory distress and no complaints of pain during breathing.

Eating and Drinking

Patient claims to have decreased appetite after operation and risk of poor wound healing since although she is obese, she still needs some important nutrients like protein and vitamins like vitamin A, C, and K. Also patient is scared that when she ate, it will cause more pressure to her abdominal wound. Patient is able to eat and drink independently, no complains of difficulty of swallowing, and she is on normal diet.

Eliminating

Mrs. P has urinary catheter in situ draining adequate amount of urine at present which made her at risk of further infection. She was continent of faeces and uses bedside commode with assistance of two staffs. Because of the pain on her wound when moving and the need of two staffs to help her get out of bed, she keeps refusing her senna tablet and end up opening her bowel on bed.

Personal Cleansing and dressing

Nurses are the one irrigating and changing her wound dressing. Mrs P is unable to wash and dress herself independently due to her current state of health. Did not have any shower since admission because of her difficulty in mobilising.

Controlling body temperature

Although Mrs P got an infection, her temperature during assessment was 36. 8 degree Celsius, no sweating noted, skin warm to touch, uses only hospital gown and dressing gown to keep her warm during the day, and uses top sheet and one blanket at night. She has limited mobility which predisposed her to poor blood circulation.

Mobilising

While on bed, Mrs P can turn on her sides but still with assistance of one staff because of her abdominal wound and she’s an obese patient. Patient complains of pain on the surgical site when moving and mobilising. Three days before she was being hoisted from bed to chair and back to bed with assistance of 3 staffs but at this time after referral to physiotherapist, she can transfer to chair with assistance of two staffs and use of a zimmer frame. She was able to stand during the transfer and can make 2-3 steps during transfer.

Working and playing

Patient worked in an office before but had early retirement due to illness. Enjoys knitting and playing with her grandchildren at home. Although she can still do knitting, she cannot run or look after her grandchildren at home in her situation.

Expressing sexuality

Mrs P is 63 years old, menopause, and still lives with her husband. Her abdominal wound makes her anxious about her body image.

Sleeping

Patient says she’s not able to sleep well due to environment change, pain and sometimes bowel urgencies. Mrs P takes two glasses of milk before bedtime.

Death and Dying

Mrs P keeps asking about worst thing that could happen to her regarding her present condition. She is worried for her husband when it happens to her first. Patient does not have a will.

## IDENTIFICATION OF PATIENT’S PROBLEM

While in the ward, Mrs P was assessed using the RLT Model based on activities of living. From those activities, all problems identified were related to her infected wound that is not healing normally. She has to stay further in the hospital until her infection is dealt with and that her condition will be manageable by primary care. This is a serious problem that if not attended immediately would cause further injury or problems to Mrs P therefore these problems which are related to each other should be the priority and the focus of her care plan.

## GOALS

After nursing interventions, Mrs P will be able to verbalize feelings regarding her condition and understand the course of treatment being done to her. In three to 7 days, patient will be able to mobilize on her own using her zimmer frame and will be infection free.

## NURSING CARE PLAN

PROBLEMS

INTERVENTIONS

RATIONALE

REFERENCES

1. Wound Infection

> Monitored patient’s vital signs.

> Assessed wound site daily and documented.

> Maintained aseptic technique when changing dressing and irrigation.

> Administered antibiotic as prescribed.

> Encouraged patient to eat nutritious food and increase fluid intake

> Educated patient about wound infection control and prevention.

> Infection is frequently linked with pyrexia

> As basis for treatment

> To prevent further deterioration in wound

> Inhibits growth and kill microorganisms

> Enhance immune response

> To have an idea on how to manage her surgical wound

Rico et al, 2002

Shultz et al, 2003

MEP, 2008

Colier, 2004

Dealey, 2012

NICE, 2006

2. Poor wound healing

> Assessed the wound and its surroundings

> Monitored blood glucose regularly

> Maintained strict infection control measures

> Encouraged patient to eat nutritious food and increase fluid intake

> Encouraged diversional activities like knitting and reading papers.

> Maintained a moist wound environment but not saturated

> Managed exudates to ensure that surrounding skin is protected from leakage.

> Referred to tissue viability nurse

> To assess healing and as basis for treatment.

> Associated with delayed wound healing.

\* need to expand

> To prevent further infection

> Poor nutrition increases infection risk.

\* how does protein, calories affects healing, hydration?

Link poor healing with nutrition.

> To reduce stress caused by pain on the wound surroundings.

> Supports wound healing

> Exudates can damage surrounding skin and is ideal for bacterial growth

> To give advice on appropriate wound dressing for wound healing by secondary intention.

Daugherty and Lister, 2004

Patel, 2008

Pratt et al, 2007

Dealey, 2012

Augustine and Maier, 2003

Shultz et al, 2003

Vowden and Vowden, 2002

NICE, 2006

## PART 2

## HEALTH AND SOCIAL CARE POLICIES

The basic principle of NHS is that “ good healthcare should be available to all, regardless of wealth”(NHS website, 2011). In order to maintain it, the NHS is regulated by several policies. DH policies are designed to improve on existing arrangements in health and social care, and turn political vision into actions that should benefit staff, patients and the public (DH 2010b).

Mrs P’s information are compiled in a folder and kept in a secure place so that only members of the Multi-disciplinary team responsible for her care will be able to access it. It is the responsibility of healthcare professionals to safeguard their patient’s information and share it only to appropriate individuals (NMC, 2008). Mrs P’s personal information were handled in accordance with Data Protection Act of 1998.

According to Mental Capacity Act of 2005, “ every adult has the right to make his or her decision and must be assumed to have capacity to make them unless it is proved otherwise.” Informed consent was taken from Mrs P before any procedures or treatment was given or done. Doctors, anaesthetists and nurses has the responsibility to explain all tests and procedures being carried out on her and made sure she understood why it is being done or given to her. The consent is not valid when the person did not understand intervention (DH, 2009a).

The vital signs of Mrs P were kept monitored and documented using the National Early Warning Score (NEWS)Chart. It is a new observation chart (implemented July, 2012) used in the ward where Mrs P was admitted. RCP (2012) says that this is also “ used as a surveillance system for all patients in hospitals, tracking their clinical condition, alerting the clinical team to any clinical deterioration and triggering a timely clinical response”. Another tool used in Mrs P’s ward is the SBAR Tool. It is a structured method for communicating critical information that requires immediate attention or action(NHS Website, 2008).

The patient was also assessed using the Waterlow Pressure Ulcer Risk Assessment Tool and Malnutrition Universal Screening Tool(MUST). In the chart it says there that although the later was incorporated to Waterlow, they should be assessed individually to ensure patient needs are addressed and their care was implemented (Waterlow 1985, Revised 2005). This tool helps nurses and other healthcare professionals in identifying what measures and equipment are needed for the care of the patient. NICE (2006) recommends that “ all hospital inpatients on admission and all outpatients at their first clinic appointment should be screened (weighed, measured and have Body Mass Index (BMI) calculated). Screening should be repeated weekly for inpatients and when there is clinical concern for outpatients”.

The abdominal wound of Mrs P was also assessed and documented on the Wound Management Chart implemented by the trust. Mrs P’s surgical team decided to leave her dehisced wound open and heal by second intention. The team looking after her prescribed antibiotic, and twice a day irrigation and dressing of her wound. Mrs P was referred to the Tissue Viability Nurses (TVN) for advice on appropriate dressings to be used on her wound as it was planned to heal by secondary intention (NICE, 2012).

Another issue to consider in looking after Mrs P was infection control. The fact that she was already infected does not mean healthcare staffs no longer follow Infection control procedures. Infection control should be strictly manifested in order not to aggravate her situation. Hand hygiene is important especially before touching the patient’s wound to minimise introduction of pathogens and also after changing wound dressings to prevent self and cross- contamination of patient. The WHO (2006), provided Five Moments as to when healthcare professionals should perform hand hygiene. Use of appropriate Personal Protective Equipments (PPE) should also be worn when irrigating and renewing the surgical wound dressing of Mrs P to prevent spread of infection. Guidelines on how to put on PPE and how to take it off were also produced by WHO(2007). Proper disposal of sharps used by Mrs P like needles used for her antibiotic, insulin, and fragmin injection should also be observed. They should be thrown directly to designated sharp bins as uncapped and still assembled (RCN, 2011).

## OVERALL EVALUATION AND CRITIQUE OF FRAMEWORK

The nursing process is an orderly method of designing and providing nursing care which are collecting information and assessing the patient, planning care and defining objectives for nursing care, implementing interventions and evaluating results (Uys & Habermann, 2005, p. 3). Roper et al(2000, p. 124) pointed out that assessment which is considered to be the first phase of the nursing process should be done regularly and not only once. Being this the case, the use of Roper- Logan-Tierney (RLT) Model based on Activities of Living is preferred for Mrs P’s case. It does assess the patient needs wholly and can determine the impact of infection and poor wound healing to her identified twelve activities of living as recognized by the model. Using RLT model, an overview of Mrs P’s health status was created and from it prioritization of her needs is easier. This model enabled healthcare professionals to produce a care plan which is unique or aligned to her needs. The author of this care study find this framework to be an ideal model in assessing patient and useful for healthcare professionals as they do not miss out any aspect of care.

Looking at the down side of the model, it is a very long process of assessment and it takes time for a healthcare staff to finish all the twelve areas. The author of this study thinks although it is an ideal one that in a ward where Mrs P was confined, there might be an issue in doing this regularly to all patients. It is a very busy ward and if all patients are assessed regularly using this model, problems on other aspect of nursing process will be left untouched and cause additional work to incoming staffs.

## CONCLUSIONS AND IMPLICATIONS FOR FUTURE PRACTICE

Health and social care policies are indeed very important and has a great impact to the healthcare system. It serves as the basis for the trusts in making their own policies and it guides healthcare professionals to their practice. Nurses practice in accordance with the NMC Code, Standards of conduct, performance and ethics for nurses and midwives and other laws and guidelines provided by the British government and different departments or agencies like the Department of Health, National Institute of Clinical Excellence, World Health Organization, etc.

After using the Roper-Logan-Tierney Model The care of Mrs P went smoothly during her stay in the hospital. Her post- operative complications have been managed without any major issues. Since the very start, nurses and other members of the MDT reassured her that personal details and all information regarding her care is treated as confidential and that this could only be shared to appropriate people only on her approval. The MDT members based their interventions on the protocol and policies of the trusts which was based on National policies. Mrs P’s problems were managed by the interventions provided in the hospital and was now discharged and back to her home. Long term goals were also taken into account therefore a proper referral to the district nurse was done before she went home.