# SESLHD GUIDELINE COVER SHEET

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| **NAME OF DOCUMENT** | Nursing Observation for Total and Completion Thyroidectomy |
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| **DOCUMENT NUMBER** | SESLHDGL/046 |
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| **EXECUTIVE SPONSOR or EXECUTIVE CLINICAL SPONSOR** | Clinical Stream Director, Surgery, Perioperative and Anaesthetics |
| **AUTHOR** | Helen Cox, Clinical Nurse Consultant – Acute Surgery POWH |
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| **FUNCTIONAL GROUP(S)** | Surgery, Perioperative and Anaesthetics |
| **KEY TERMS** | Total Thyroidectomy, Completion Thyroidectomy, Parathyroidectomy, Minimally Invasive Parathyroid Surgery (MIPS), Parathyroid Hormone (PTH). |
| **SUMMARY** | Details the role the nurse must undertake in caring for a patient undergoing Thyroid Surgery. Providing information on the postoperative phase. |


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# SESLHD GUIDELINE COVER SHEET

Health
South Eastern Sydney
Local Health District

## Nursing Observation for Total and Completion Thyroidectomy

## Section 1 – Background

A clinical guideline is a set of recommendations based on systematic identification and synthesis of the best available scientific evidence to make clear recommendations for the care, health professionals provide (NHMRC, 2011). It is fundamental that guidelines are based on the best available evidence at the time as agreed by expert stakeholders.

The Total and Completion Thyroidectomy guideline has been created to provide an evidence based reference for managing thyroidectomy patients across South Eastern Sydney Local Health District (SESLHD) and to support the Observation Chart in its implementation. The aim of the Guideline is to standardise the role the nurse must undertake in caring for a patient undergoing Thyroid Surgery and provide information on the postoperative phase.

The purpose of the Guideline is as follows:

- Reduce clinical error
- Provide evidence based best practice Guideline
- Limit unwarranted variation in clinical practice
- Improve patient safety
- Provide support for new and transitioning staff regardless if facility
- Provide support to the Post -Operative Thyroidectomy Observation Form.

## Section 2 – Principles

- Thyroidectomies are performed for the management of goitre, tumours or hyperthyroidism
- Provides appropriate nursing care and understanding of the types of thyroid surgery
- This rule applies to inpatients of SESLHD.

## Section 3 – Definitions

**Thyroidectomy** refers to the surgical removal of the thyroid gland. It is performed for goitre, hyperthyroidism and tumours.

**Parathyroidectomy** refers to the surgical removal of the parathyroid glands.

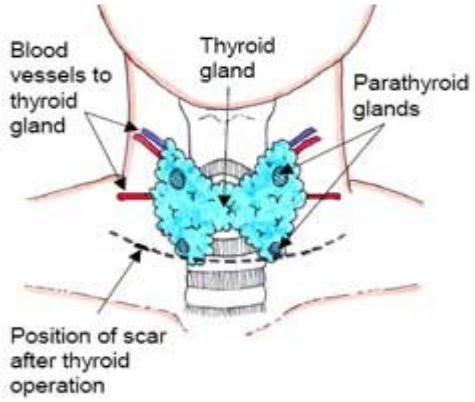
**Hemithyroidectomy** refers to the surgical removal of one lobe of the thyroid gland.

**Completion Thyroidectomy** refers to the surgical removal of the remaining thyroid tissue after a hemithyroidectomy. This has the same potential complications as a total thyroidectomy.

**Hypocalcaemia** refers to a deficiency of calcium in serum. Mild hypocalcaemia is usually asymptomatic. Severe hypocalcaemia is characterised by hyperparasthesia of the hands, feet, and lips, tetany and cardiac arrhythmias.

**Chvostek's Sign** refers to the twitching or contracture of the facial muscles produced by tapping the facial nerve at a specific point on the face.

**Trousseaus Sign** refers to the carpopedal spasm occurring after a few minutes of inflation of a sphygmomanometer cuff above systolic blood pressure.




**The Thyroid Glands**

## Section 4 – Responsibilities

**Registered Nurse and Enrolled Nurse** caring for the postoperative Total Thyroidectomy or Completion Thyroidectomy patient.

# Section 5 – Specific Procedure Post Operative Care

**POST OPERATIVE CARE –**
**TOTAL THYROIDECTOMY, COMPLETION THYROIDECTOMY and PARATHYROIDECTOMY:**

- Ensure patient is nursed in semi – high fowler's position (> 45º)
- Observe wound on arrival to unit. Check for excessive bleeding, swelling and drain output. Assess patient's voice for stridor, pain. Ensure the neck of the patient is well supported.
- Trousseaus and Chvostek's (T&C) signs to be reviewed 4/24 for up to 72 hours. This management can be changed in accordance with the Surgeon's instructions.
  (NB: T&C's can cease after a Normal Parathyroid Hormone (PTH) has been recorded post-surgery)
- Patient to have free fluid diet for the first night, then diet as tolerated
- Assess and document pain 4/24 and prn
- Analgesia is prescribed and administered as charted or PRN as required
- Drain to be monitored, emptied and recorded appropriately on the SESLHD Fluid Balance Chart.

**POST OPERATIVE CARE –**
**MINIMALLY INVASIVE PARATHYROIDECTOMY SURGERY (MIPS)**

- Ensure patient is nursed in semi – high fowler's position (>45º)
- Observe wound on arrival to unit. Check for excessive bleeding, swelling and drain output. Assess patient's voice for stridor, pain. Ensure the neck of the patient is well supported.
- Assess and document pain 4/24 and prn Patient to have free fluid diet for the first night, then diet as tolerated
- Analgesia is prescribed and administered as charted or PRN as required
- Usually a Day Only Surgery. PTH and Calcium levels should be checked two hours post-surgery. If within normal range, patient would be suitable for discharge home
- Patient to be provided with instructions when to commence Calcium / Vitamin D supplement in the event of developing symptoms.

**POST OPERATIVE CARE –**
**HEMITHYROIDECTOMY**:

- Ensure patient is nursed in semi – high fowler's position (> 45º)
- Observe wound on arrival to unit. Check for excessive bleeding, swelling and drain output. Assess patient's voice for stridor, pain. Ensure the neck of the patient is well supported.
- Patient to have free fluid or soft diet for the first night, then diet as tolerated
- Assess and document pain 4/24 and prn Analgesia is prescribed and administered as charted or PRN as required
- Drain to be monitored, emptied and recorded appropriately on the SESLHD Fluid Balance Chart.

# Section 6 – General Post Operative Care

**OBSERVATIONS:**

| Observation | Frequency | Duration |
|---|---|---|
| T'S and C's (Total Thyroidectomy Only) | 4th hourly | Cease once PTH Level is Normal |
| Airway Management | 2nd hourly | 72 Hours |
| Wound Management | 2nd hourly | 72 Hours |
| Oxygen Saturations | Hourly for 4 hours | Then 4/24 (stable) |
| Respiratory Rate | Hourly for 4 hours | Then 4/24 (stable) |
| Temperature | Hourly for 4 hours | Then 4/24 (stable) |

- Hypocalcaemia symptoms are usually manifested 24 to 72 hours after thyroid surgery
- Monitor airway of patient for any stridor, change in vocalisation, especially in the first 24 hours
- Monitor drain site for excess bleeding, swelling and / or haematoma.

**NB: Inform Medical Officer if noticeable changes occur in the aforementioned observations.**

**NUTRITION:**

- Patient to have free fluid diet for the first evening. Then progress patient to diet as tolerated from the next morning, as patients can experience difficulty in swallowing and eating due to pain and swelling after the procedure.

**WOUND CARE:**

- Monitor surgical site for excessive bleeding through dressing and also via surgical drain
- Observe for swelling. This can be an indicator for internal bleeding or haematoma.

**EMERGENCY EQUIPMENT TO BE KEEPT NEXT TO THE BED**

- Clip or Staple Removers
- Combines
- Gauze.

**NB: Calcium Gluconate is utilised in the event of severe hypocalcaemia. This is to be prescribed by a Medical Officer.**

**VARIANCES**

Thyroid storm (which is extremely rare), occurs after surgical manipulation of the gland which has been subjected to stress and/or previously controlled by medication prior to surgery. Intra-operatively, the patient will display signs of tachycardia and an increase in temperature. Postoperatively, the patient may become agitated, disorientated and also have frequent watery stools. If not treated, patients with thyroid storm may progress to coma and death. It is important to notify the surgical team immediately if any of these symptoms are present.

**Under SESLHD CERS Criteria: Rapid Response or Code Blue is activated calling 2222.**

# Section 7 – Documentation & References and Revision and Approval History

## Documentation

- Observations for total and completion thyroidectomy (Form No: SES110046)
- SESLHD Fluid Balance Chart
- EMR: Detailed documentation needs to be provided by the nurse caring for a post-operative thyroidectomy patient regarding trends in general observations and also including: wound observation, wound drainage, Trousseau and Chvostek's signs, voicing of patient.

## References

### External References


| | |
|---|---|
| 1 | Litwack-Saleh, K. (1992). Practical Points in the care of the patient post-thyroid surgery. *Journal of Post Anaesthesia Nursing,* 7, 404 – 406. |
| 2 | Urbano, FL. (2000). Signs of Hypocalcaemia: Chvostek's and Trousseau's Signs. *Hospital Physician,* 43 – 45. |
| 3 | Mosbys (1998). Medical, Nursing and Allied Health Dictionary. St. Louis, Missouri. |
| 4 | http://www.bmihealthcare.co.uk/treatment/treatmentsdetail?p_name=Thyroidectomy%20(for%20Goitre)&p_treatment_id=355 |
| 5 | *Consensus Statement from Andrew Parasyn(Consultant Surgeon) and Professor Phil Crowe(Department Head – General Surgery)* Prince of Wales Hospital - in relation to Completion Thyroidectomy, Nutrition and Variances. April 2012 |


### Internal References

SESLHDPR/336 – Documentation in the Health Care Record
NSW Health Policy Directive PD2017_013 - Infection Control Policy

### SESLHD: Clinical Emergency Response Systems (CERS)

SESLHDPR/697 – Management of the Deteriorating ADULT inpatient (excluding maternity)
SESLHDPR/705 – Management of the deteriorating Maternity woman

## Revision and Approval History

| Date | Revision No. | Author and approval |
|---|---|---|
| March 2016 | 1 | Helen Cox – CNC Acute Surgery - POW<br>Janine Bothe - CNC Surgery – STG |
| April 2016 | 1 | Draft for Comment – endorsed by Executive Sponsor |
| May 2016 | 1 | Helen Cox – CNC Acute Surgery POWH<br>Janine Bothe – CNC Surgery STG |
| October 2016 | 1 | Endorsed by SESLHD Clinical and Quality Council |
| November 2016 | 1 | Published |
| March 2022 | 2 | Minor review by Helen Cox – CNC Acute Surgery – POW, and<br>Janine Bothe - CNC Surgery – STG<br>References and links updated.<br>Approved by Executive Sponsor. |

# Appendix A:

Thyroidectomy Observation Form: SES110.046

Holes Punched as per AS2828.1: 2012
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SES110046

NHSIS0771– 011214

Health
South Eastern Sydney
Local Health District

Facility:

**OBSERVATIONS FOR TOTAL AND COMPLETION THYROIDECTOMY**

FAMILY NAME | MRN
GIVEN NAMES | ☐ MALE ☐ FEMALE
D.O.B. _____ / _____ / _____ | M.O.
ADDRESS
LOCATION / WARD
COMPLETE ALL DETAILS OR AFFIX PATIENT LABEL HERE

Observations to be attended **4 hourly for 24 hours post operatively** unless otherwise instructed by the surgeon (see reverse side for observation guidelines)

| Date | Time | Trousseau's Sign (+ve or -ve) | Chvostek's Sign (+ve or -ve) | Dyspnoea | Voice | Wound site* | Drain output** | Emergency Equipment | Sign |
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SES110.046 OBSERVATIONS FOR TOTAL AND COMPLETION THYROIDECTOMY

Health
South Eastern Sydney
Local Health District

| | | | |
|---|---|---|---|
| Health South Eastern Sydney Local Health District | | FAMILY NAME | MRN |
| Facility: | | GIVEN NAMES | ☐ MALE ☐ FEMALE |
| **OBSERVATIONS FOR TOTAL AND COMPLETION THYROIDECTOMY** | | D.O.B. ____/____/____ | M.O. |
| | | ADDRESS | |
| | | LOCATION / WARD | |
| | | COMPLETE ALL DETAILS OR AFFIX PATIENT LABEL HERE | |

**Trousseau's Sign:** A carpopedal spasm occurring after a few minutes of inflation of a sphygmomanometer cuff above systolic blood pressure (see diagram 1. below)

**Chvostek's Sign:** Twitching and/or contracture of the facial muscles produced by tapping on the facial nerve at a specific point on the face (see diagram 2. below)

**Dyspnoea:** Record and report any respiratory effort or distress eg stridor. **NB: changes in voice may indicate threatened airway. Call Code Blue if patient's condition is immediately life threatening**

**Voice:** Record and report changes in voice quality / integrity eg hoarse, absent. **NB: changes in voice may indicate threatened airway. Call Code Blue if patient's condition is immediately life threatening**

**Wound Site:** D=Dry, S=Soiled, I=Intact, H=Haematoma ***wound management plan should be documented on SESIAHS wound management chart**

**Drain Output Type:** H/S=Haemoserous, S=Serous, F=Frank blood, N=Nil ****volume of drain output should be documented on SESIAHS daily fluid balance chart**

**Testing for a positive Trousseau's Sign:**

Inflate sphygmomanometer cuff above systolic pressure then wait several minutes.

Occlusion of the brachial artery causes flexion of the wrist and metacarpophalangeal joints, hyperextension of fingers, and flexion of the thumb on the palm.

**Diagram 1.**

**Testing for a positive Chvostek's Sign:**

Tap 0.5cm-1cm below the zygomatic process of the temporal bone, 2cm anterior to the ear lobe, and on a line with the angle of the mandible (see point A on the diagram).

Twitching may involve any or all of the facial nerve on that side, including circumoral muscles and the orbicularis oculi.

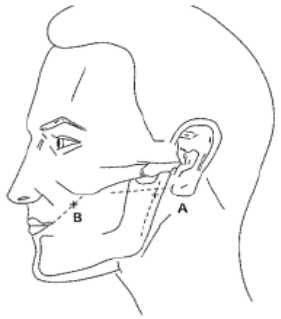


**Diagram 2.**



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