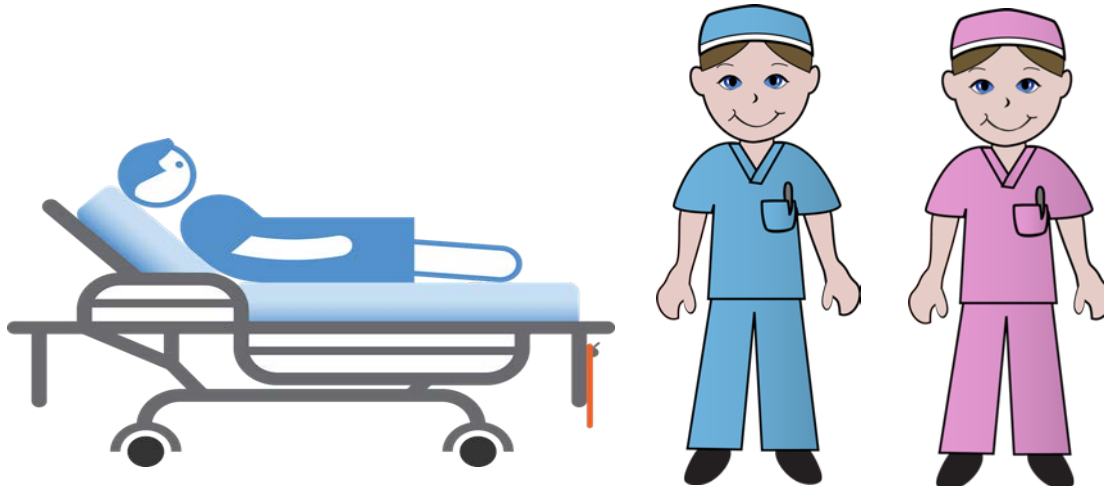


Post-Operative Care Service in TKOH

One-Stop Nurse-Led Discharge Programme



APN Lo Yim Chi
TKOH A&OT
07 May 2018



TKOH Operating Theatre



Objectives of the One-Stop Nurse-led Discharge Programme



- Timely discharge



- ↑ Nursing Professionalism



- Cost-efficiency

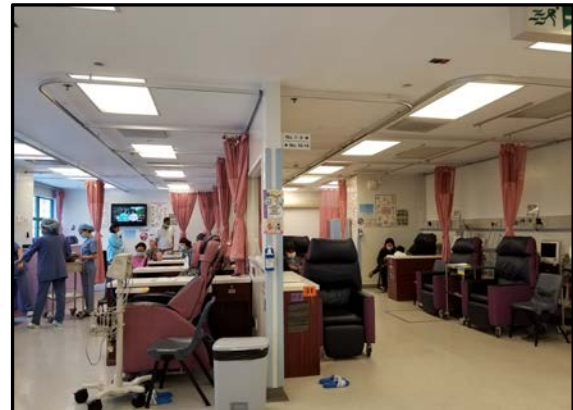
One-Stop Nurse-led Discharge (NLD) Programme

*Since
April 2016*

**Phase I
Recovery (PACU)**



**Phase II
Recovery (ASC)**



Phase I Recovery in PACU



NLD Nurse Competencies

**Over 2 years OT experience including PACU
or
Certificate holder of PRCC of Anae & RR
Nursing**

And

**Completion of NLD
Training Program**

**Passed Competency
Assessment**

Patient Exclusion criteria

| | |
|--|---|
| Nasal and Throat surgery | Intra-operative Blood loss > 300ml or 10% of Blood volume |
| Total Joint Replacement surgery | Epidural anesthesia infusion |
| Duration of anesthesia > 3 hours | Peripheral Nerve Catheter infusion |

PACU Discharge Scoring System

| | |
|------------------------------|-------------------------------|
| *1. Consciousness | 5. Pain (rest) |
| *2. Breathing | 6. Nausea and Vomiting |
| *3. Oxygen Saturation | 7. Surgical Bleeding |
| *4. Circulation | 8. Temperature |

Remark : * = Mandatory Criteria

Ref: Ead, H. (2006). From Aldrete to PADSS: Reviewing Discharge Criteria after Ambulatory Surgery. Journal of Peri-Anesthesia Nursing Vol. 21, No. 4 (August) 259-267

PACU Discharge Scoring System

| | Variable | Score | Criteria |
|---|---------------------|-------------|---|
| 5 | Pain (rest) | 2 1 0 | None or minimal; or well controlled by Rx (pain score $\leq 4/10$) Moderate (pain score 5-7/10) Severe or unacceptable (pain score 8-10/10)** |
| 6 | Nausea and Vomiting | 2 1 0 | None or minimal; or well controlled by Rx Moderate Severe; persistent despite treatment** |
| 7 | Surgical Bleeding | 2 1 0 | None or minimal (no dressing change is required) Moderate (up to 2 dressing changes are required) Severe (more than 3 dressing changes are required; or new drain output >300ml)** |
| 8 | Temperature | 2 1 0 | Return to pre-operative baseline (and $> 36^{\circ}\text{C}$) Not returned to pre-operative baseline (but within $35.5-38.5^{\circ}\text{C}$) $<35.5^{\circ}\text{C}$ or $> 38.5^{\circ}\text{C}$ ** |

Remark: * = Mandatory Criteria ** = Zero score

Patient Discharge Criteria:

- Two consecutive sets of scoring with $\geq 15/16$ and full score in Mandatory Criteria
- Stay in PACU ≥ 30 minutes
- Over 15 mins stay after last dose of Opioid
- For SA patient, regression block return to L1 myotome or dermatome

Unfulfilled Discharge Criteria:

Patient have **Zero score** in any of the assessment items.

or

Patient stay in **PACU >90 mins** and do not fulfill the discharge criteria.

Inform Anesthetists if any doubt in assessing or managing the patient .



Phase II Recovery in ASC



Criteria for Day discharge:

| Tseung Kwan O Hospital Ambulatory Surgery Centre | | Please affix patient's label here | | | | | | | | | | | | | |
|--|--|-----------------------------------|-----------------------------|-----------------------------|-------------|-------------------|-------------|-----------|-----------|-----------|-----------|-----------|--|--|--|
| Nurse-led Discharge of Day Surgery Patient Pre-discharge Assessment Form | | | | | | | | | | | | | | | |
| Post-anaesthesia advice from anaesthetist: Patient to be discharged home by <input type="checkbox"/> Nurse <input type="checkbox"/> Anaesthetist | | | | | | | | | | | | | | | |
| Name of Anaesthetist: _____ Sign : _____ | | | | | | | | | | | | | | | |
| Operation date: _____ | | | | | | | | | | | | | | | |
| Diagnosis: _____ | | | | | | | | | | | | | | | |
| Operation: _____ | | | | | | | | | | | | | | | |
| Arrival time at Phase 2 Recovery: _____ | | | | | | | | | | | | | | | |
| Anaesthetic Type: GA / SA / MAC / others _____ | | | | | | | | | | | | | | | |
| Airway Management: *ETT / LMA / Facemask / Natural / Others _____ | | | | | | | | | | | | | | | |
| Criteria for Same Day Discharge | | | | | | | | | | | | | | | |
| 1. | Patient has ≥ 2 hours rest at Phase 2 recovery. | <input type="checkbox"/> Yes | <input type="checkbox"/> No | | | | | | | | | | | | |
| 2. | Patient is conscious and alert | <input type="checkbox"/> Yes | <input type="checkbox"/> No | | | | | | | | | | | | |
| 3. | Patient has ≥ 9 scores of the Modified Post-anaesthesia Discharge Scoring System (MPADSS) ¹ with SBP within 90-180 mmHg, details as follows: | <input type="checkbox"/> Yes | <input type="checkbox"/> No | | | | | | | | | | | | |
| | <table border="1"> <tr> <th>Vital signs</th> <th>Ambulation</th> <th>Nausea vomiting</th> <th>Pain</th> <th>Surgical bleeding</th> <th>Total score</th> </tr> <tr> <td>0 / 1 / 2</td> <td>0 / 1 / 2</td> <td>0 / 1 / 2</td> <td>0 / 1 / 2</td> <td>0 / 1 / 2</td> <td></td> </tr> </table> | Vital signs | Ambulation | Nausea vomiting | Pain | Surgical bleeding | Total score | 0 / 1 / 2 | 0 / 1 / 2 | 0 / 1 / 2 | 0 / 1 / 2 | 0 / 1 / 2 | | | |
| Vital signs | Ambulation | Nausea vomiting | Pain | Surgical bleeding | Total score | | | | | | | | | | |
| 0 / 1 / 2 | 0 / 1 / 2 | 0 / 1 / 2 | 0 / 1 / 2 | 0 / 1 / 2 | | | | | | | | | | | |
| 4. | For patient after spinal anaesthesia: Patient's lower limb power & sensation has been fully recovered. | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> NA | | | | | | | | | | | |
| 5. | For patient after urogenital ² surgery / pelvic or rectal surgery ³ / has history of urinary retention / intra-op catheterization: Patient has urinated after surgery. | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> NA | | | | | | | | | | | |
| 6. | For patient who has history of diabetes / renal insufficiency / complained of PONV in Recovery Room / resides at a long distance from TKOH: Patient can tolerate oral fluid after surgery. | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> NA | | | | | | | | | | | |
| 7. | Patient has responsible person(s) to escort home. | <input type="checkbox"/> Yes | <input type="checkbox"/> No | | | | | | | | | | | | |
| 8. | Patient has carer(s) for the first 24 hours after surgery. | <input type="checkbox"/> Yes | <input type="checkbox"/> No | | | | | | | | | | | | |
| 9. | Patient has information to seek help in case of emergency. | <input type="checkbox"/> Yes | <input type="checkbox"/> No | | | | | | | | | | | | |
| 10. | Other criteria: _____ | <input type="checkbox"/> Yes | <input type="checkbox"/> No | | | | | | | | | | | | |

- **Conscious** and **alert**
- Over **2 hours** rest in ASC
- **Urinated** after surgery
- **Tolerated oral fluid** after surgery
- For SA → Lower Limbs power and **sensation fully recovered**
- Responsible person **escort home** and **take care** for the post-op **first 24 hours**

Modified Post-anaesthesia Discharge Scoring System

Patient has **≥ 9 scores** of the Modified Post-anaesthesia Discharge Scoring System with SBP within 90-180 mmHg, details as follows:

| Vital signs | Ambulation | Nausea vomiting | Pain | Surgical bleeding | Total score |
|-------------|------------|-----------------|-----------|-------------------|-------------|
| 0 / 1 / 2 | 0 / 1 / 2 | 0 / 1 / 2 | 0 / 1 / 2 | 0 / 1 / 2 | |

- **Vital signs** within 20% of preoperative value
- Must be able to **ambulate**
- Minimal **nausea and vomiting** prior to discharge
- Tolerated **pain** prior to discharge
- **Postoperative bleeding** should be consistent with expected blood loss

Discharge pamphlet

Ambulatory Surgery Centre Service Hour:

Monday to Friday 8am-8pm;

Saturday, Sunday & Public holiday:
Closed.

Enquiry / Emergency Arrangement

Should you have any enquiry, please contact the
Ambulatory Surgery Centre: **Tel: 22080700**



During the non-office hours, you may contact:

Female Tel: 22081107

Male Tel: 22081125

**Please seek medical advice at the Accident and
Emergency Department nearby if the following
conditions occurred:**

- ✧ Severe wound bleeding
- ✧ Severe pain / dizziness not relieved by the prescribed medications
- ✧ Wound looks red, swollen or inflamed
- ✧ Unpleasant smell or discharge from the wound
- ✧ Persistent fever (body temperature over 38 °C)
- ✧ Persistent vomiting



將軍澳醫院
Tseung Kwan O Hospital

Ambulatory Surgery Centre

Discharge Instructions For General Surgery



Phone Follow up by ASC Nurse

(The next working day after operation)



| Tseung Kwan O Hospital <u>Peri-op Care Nurse Clinic (PCNC)</u> 1st PHONE FOLLOW UP (For Day Surgery) (The next working day after operation) | |
|---|--|
| Date of Phone Follow-up | Assessor: Rank/ Name/ Signature |
| Emotional Status | <input type="checkbox"/> Calm <input type="checkbox"/> Anxious <input type="checkbox"/> Depress <input type="checkbox"/> Others: _____ |
| Activity level | <input type="checkbox"/> Steady gait, no dizziness <input type="checkbox"/> Requires assistance <input type="checkbox"/> Unable to ambulate |
| Post-op sore throat | <input type="checkbox"/> Nil <input type="checkbox"/> Minimal <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> Not applicable |
| Post-op hoarseness | <input type="checkbox"/> Nil <input type="checkbox"/> Slightly <input type="checkbox"/> Severe <input type="checkbox"/> Cannot speak because of hoarseness <input type="checkbox"/> Not applicable |
| Post-op dental or oral injury | <input type="checkbox"/> Nil <input type="checkbox"/> Yes, please specific _____ <input type="checkbox"/> Not applicable |
| Post-op Nausea & vomiting | <input type="checkbox"/> Nil <input type="checkbox"/> Minimal <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> Not applicable |
| Post-op Dizziness and drowsiness | <input type="checkbox"/> Nil <input type="checkbox"/> Minimal <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> Not applicable |
| Post-dural puncture headache | <input type="checkbox"/> Nil <input type="checkbox"/> Minimal <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> Not applicable |
| Wound pain | <input type="checkbox"/> Nil <input type="checkbox"/> Minimal <input type="checkbox"/> Moderate <input type="checkbox"/> Severe |
| Wound bleeding | <input type="checkbox"/> Nil <input type="checkbox"/> Minimal <input type="checkbox"/> Moderate <input type="checkbox"/> Severe |
| Remarks | |

Results of NLD programme

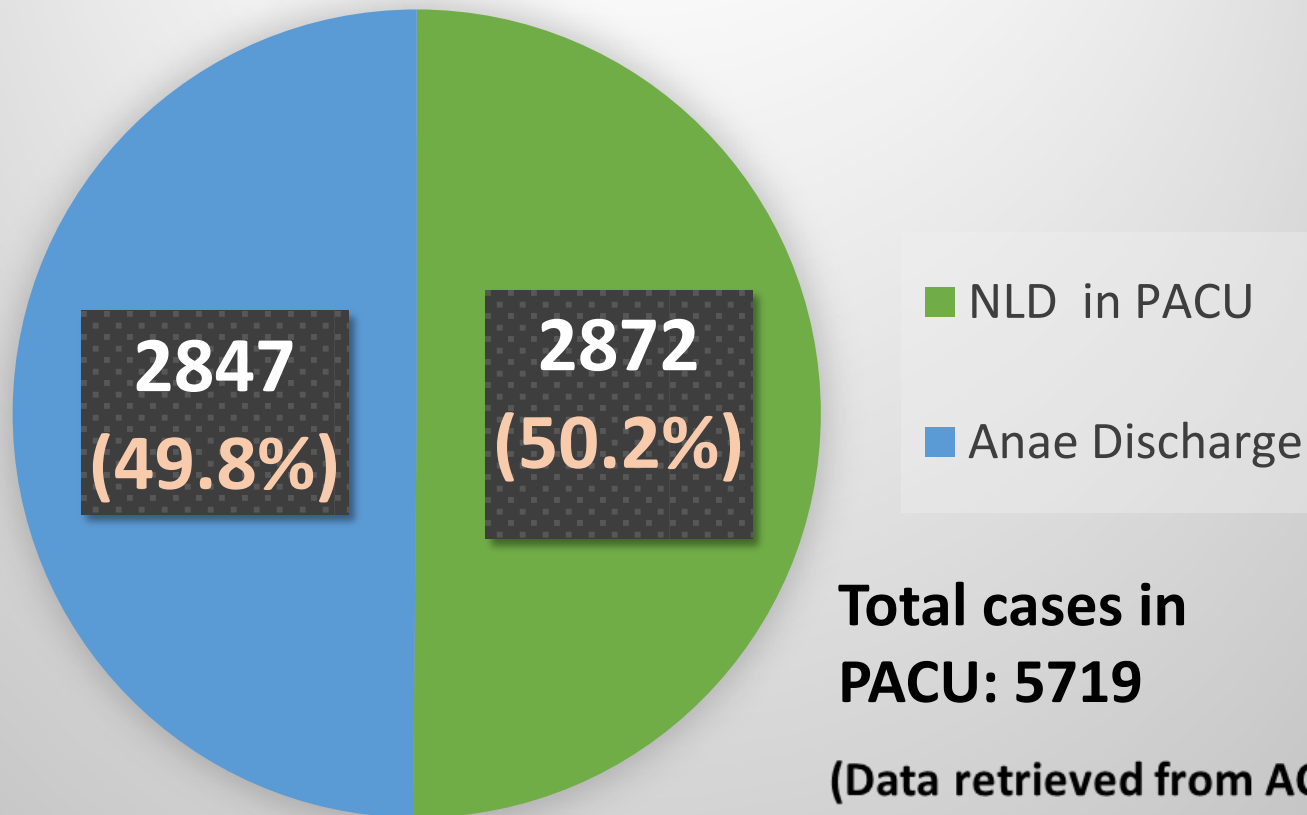
Jan – Dec 2017



Phase I NLD in PACU

(Period from Jan to Dec 2017)

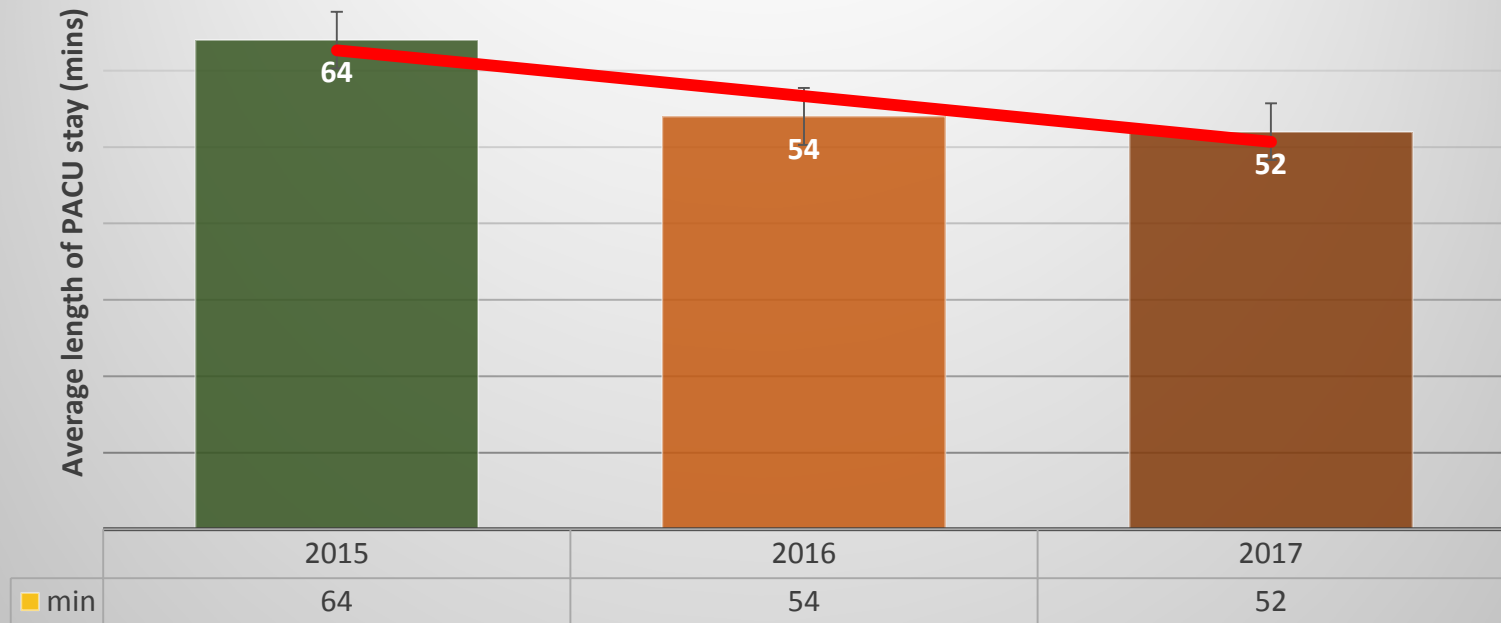
Comparison of Phase I NLD and Anae Discharge in PACU



Efficiency in PACU Improved



12mins of average time of stay in PACU reduced



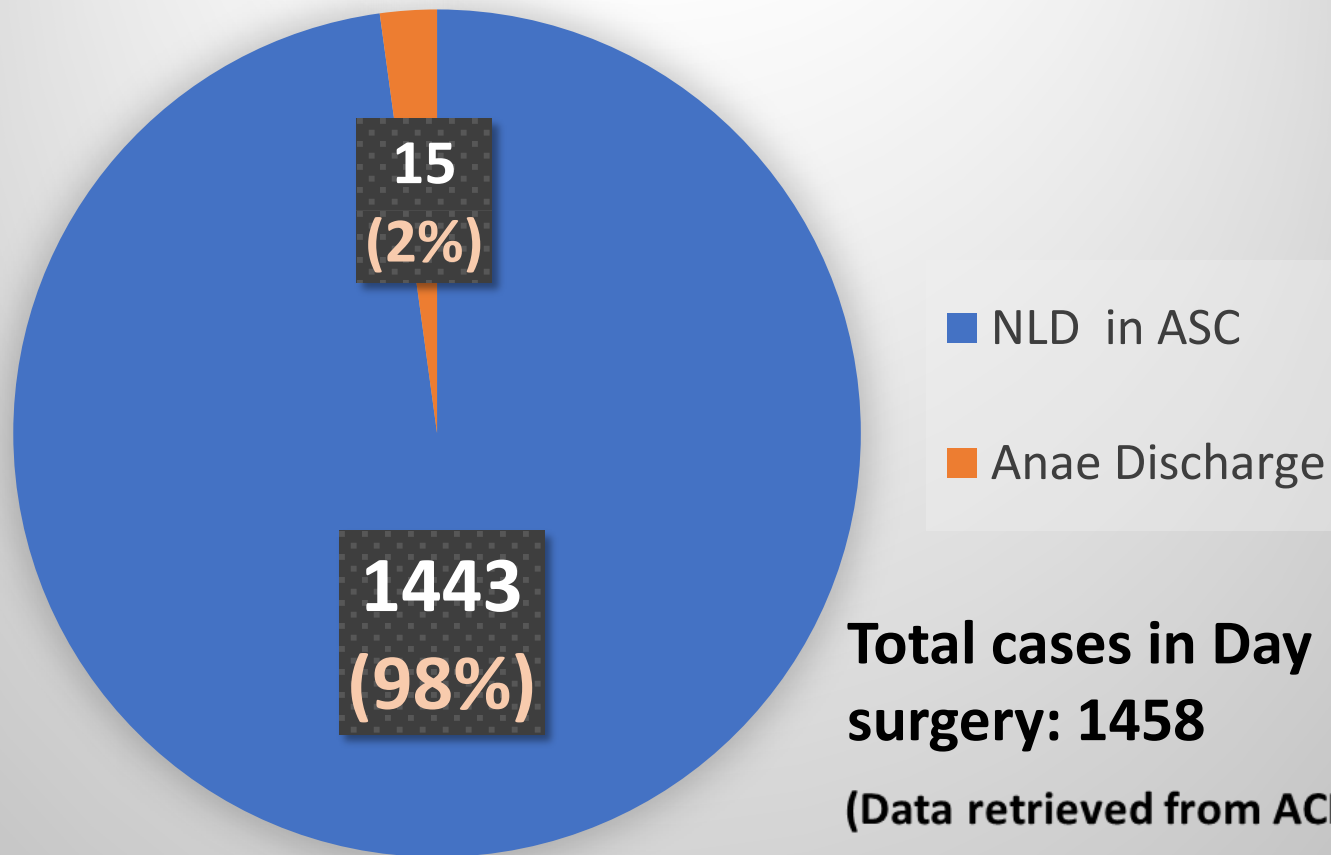
Form 2015 to 2017

(Data retrieved from ACIS)

Phase II NLD in ASC

(Period from Jan to Dec 2017)

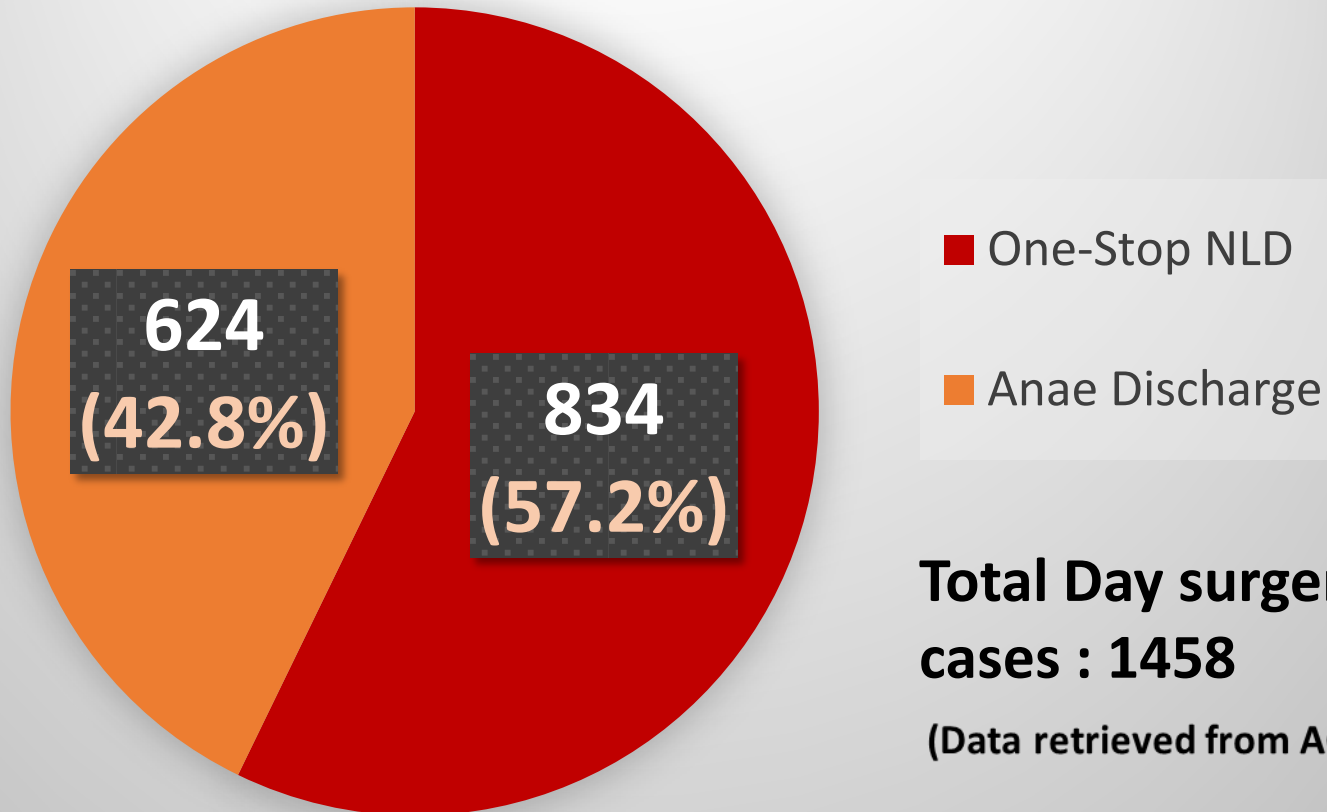
Comparison of NLD and Anae Discharge in ASC



One-Stop NLD (Phase I - II)

(Period from 1 Jan to 31 Dec 2017)

Comparison of One-Stop NLD and Anae Discharge in combined phases



Patient's Safety **Ensured**

- **Zero incident** has been reported
- **No patient** discharged by nurses was **re-admitted**

Nurse Satisfaction **Achieved**

92% of nurses feel empowered and
can manage patient flow effectively
from satisfaction survey



Way Forward



- **Expand** the pool of NLD Programme
- **Provide refresher training** for NLD nurses with regularly every 2 years
- **Reduce** the length of stay in PACU
- **Extend** the NLD service hours



TKOH NLD Team and Trainers



thank you!

Acknowledgement

We would like to express our deepest appreciation to

| | |
|----------------------------|---|
| Dr. H K Cheng | Deputy HCE / COS(A&OT/IDSS) / SD(ASC), TKOH |
| Dr. Szeto Ling | CONS (A&OT), TKOH |
| Dr. T M Lee | AC (A&OT), TKOH |
| Mr. Y Y Ngai | DOM (A&OT / ASC), TKOH |
| Ms. Maria Yeung | WM (A&OT), TKOH |
| Ms. C K Fung | WM (ASC / IDSS), TKOH |
| All NLD Team members, TKOH | |