HOSTITAL AUTHORITY CONVENTION 2026

"People-centred Care", Professional Service", "Committed Staff" and "Teamwork

Presentation

A Multidisciplinary Initiative to Standardize and Secure Tracheostomy Emergency Management through Cognitive Aids and Structured Documentation

Presenter:

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Session: O5-Clinical Safety and Quality Service II

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Why This Project?

1 Tracheostomy Emergency Crisis

- Bleeding
- Dislodgement
- Displacement
- Occlusion

Patient

Storm of physiological and cognitive stress

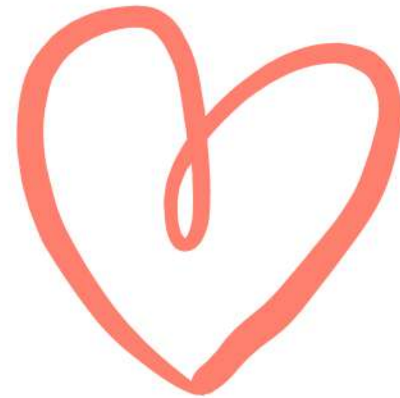
Cognitive fixation

Procedural omission

Healthcare Providers

2 Tracheostomy Patient Journey

- Involves multiple transfers
- Information continuity is critical during handovers

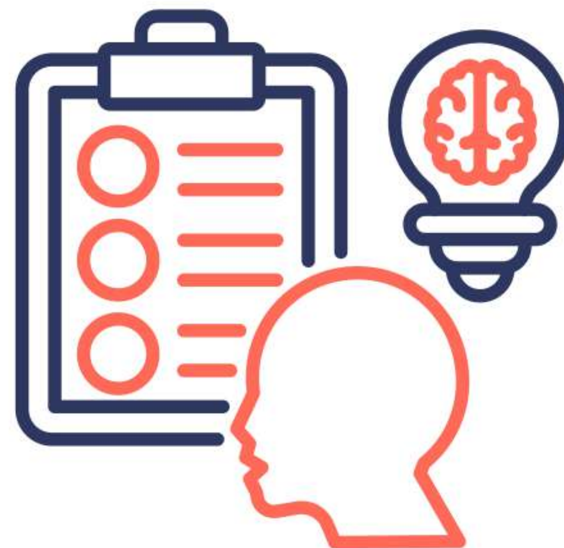


Objectives

Design & Implement a comprehensive safety net

1 Develop
Real-time Cognitive Aids

Support
Tracheostomy Emergency Response



2 Develop
Standardized, Patient-specific Recording Form

Secure
Handover Communication

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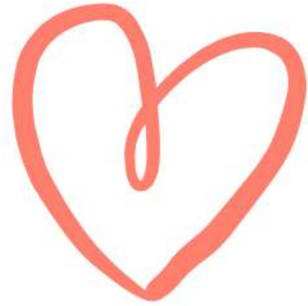
Multidisciplinary Collaboration

Co-design

Trusted by End-users



UCH
Doctors
(ANA, A&E, ENT, ICU, Resp, Surg)

KEC
Nurse Consultants
(Periop, Resp, Intensive, Emerg, ENT)
UCH
Frontline Nurses

UCH
Nursing Services Division
Nursing Q&S

KEC
Quality & Safety Office

Through multiple discussions, integrating frontline insights and clinical expertise

Cognitive Aids 認知輔助工具

Tracheostomy 臨時氣管造口

EMERGENCY TRACHEOSTOMY MANAGEMENT
(Not to be used for laryngectomy patients)
臨時氣管造口

Assess Signs & Symptoms
- Bleeding: Site bleeding; Blood aspirated or coughed out
- Tube Dislodgement: Tube seen outside
- Tube Displacement: Limited / No airflow
- Occlusion: Noisy breathing
- Resp. distress, Desaturation, Difficult / Unable to pass suction cath. +/- Absence $ETCO_2$ if applicable

Call for Help: CALL FOR HELP CASE MO / ON CALL DOCTOR (Ext.)

Positioning: Prop-up (Conscious/spontaneous breathing) or Supine (Unconscious/absent breathing/ventilated) if no contraindication

Protect Airway
- Hyper-inflate cuff temporarily for life saving emergency bleeding (+/- Re-insert if necessary)
- Deflate tube cuff if in use. Disconnect ventilator in use as PRESCRIBED
- Reposition neck & encourage coughing. Check inner/ tube & replace if in use

Oxygen & IV Access
- Lower Resp. tract bleeding: 100% O_2; Gentle suctioning
- Tracheostomy site bleeding: Direct pressure on bleeding point
- Set up large-bore IV access
- Check patency of tracheostomy tube if breathing absent
- Patent: 100% O_2 via tracheostomy tube
- Block: Cover tracheostomy stoma, 100% O_2 ventilation over mouth & nose
- Breathing present: 100% O_2 via BOTH face mask and tracheostomy mask
- If occlusion persist: Deflate tube cuff if in use; 100% O_2 via BOTH face mask & tracheostomy mask; Reattempt suctioning with smaller size suction catheter
- Breathing absent: Cover tracheostomy stoma by gloved hand; 100% O_2 manual ventilation over mouth & nose

Intervention
- Prepare bronchoscopy / surgery
- Prepare equipment & assist haemostasis
- Prepare re-insertion tube or intubation, and Resuscitation

Urgent Contact: Operating Team

Real-time

Color-coded

Imperative language

Safeguard against cognitive fixation and procedural omission

End Tracheostomy 永久性氣管造口

EMERGENCY END TRACHEOSTOMY MANAGEMENT
(CANNOT be ventilated / intubated via mouth or nose)
永久性氣管造口

Assess Signs & Symptoms
- Bleeding: Site bleeding; Blood aspirated or coughed out
- Check for presence of tracheostomy/laryngectomy tube
- Tube Dislodgement: Tube seen outside
- Tube Displacement: Limited / No airflow
- Occlusion: Noisy breathing
- Resp. distress, Desaturation, Difficult / Unable to pass suction cath. +/- Absence $ETCO_2$ if applicable

Call for Help: CALL FOR HELP CASE MO / ON CALL DOCTOR (Ext.)

Positioning: Prop-up (Conscious / spontaneous breathing) or Supine (Unconscious / absent breathing / ventilated) if no contraindication

Protect Airway
- Hyper-inflate cuff temporarily for life saving emergency bleeding if in use (+/- Re-insert if necessary)
- Deflate tube cuff if in use. Disconnect ventilator in use as PRESCRIBED
- Reposition neck & encourage coughing. Check inner tube & replace if in use

Oxygen & IV Access
- Lower Resp. tract bleeding: 100% O_2; Gentle suctioning
- Tracheostomy site bleeding: Direct pressure on bleeding point
- Set up large-bore IV access
- Breathing present: 100% O_2 to tracheostomy
- Remove all coverings if any: Remove inner tube / Deflate cuff if in use; Suction with small size of cath.; 100% O2
- Breathing absent: 100% O_2 manual ventilation ONLY with BMV (pediatric mask) via tracheostomy

Intervention
- Prepare bronchoscopy / surgery
- Prepare equipment & assist haemostasis
- Prepare re-insertion tube or intubation, and Resuscitation

Urgent Contact: Operating Team

Step-by-step crisis management

Initial assessment → Call for help → Positioning → Airway protection → Oxygen/IV setup → Specific interventions

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Recording Form Patients with Tracheostomy 氣管造口記錄表

Single-page design integrating:

1. **Insertion** details
2. **Care** highlights
3. **Transfer** reminders

Goal:

Quick grasp of patient tracheostomy status during handovers

HOSPITAL AUTHORITY UNITED CHRISTIAN HOSPITAL DEPARTMENT OF ANAESTHESIOLOGY AND PAIN MEDICINE RECORDING FORM FOR PATIENTS WITH TRACHEOSTOMY	Please Stick Label if Available or Use Block Letters HN :______ MRN :______ Name :______ HKID No. :______ Sex :___ Age :___ Dept. :______ Ward / Bed :______

Part A (Completed by Doctor for initial tracheostomy insertion) ** Circle when appropriate **

Reason for Tracheostomy:

- Percutaneous / Surgical OR End Tracheostomy

Upper airway information:

Difficult airway: No / Yes / Unknown	DL / VL grade / FOB	Potential upper Airway Obstruction: No / Yes

Tracheostomy Insertion

Date	Type/ Size	Cuffed & Pressure (recommended 20-30cmH₂O)		Fenestrated	Name of the doctor
		No / Yes:	cmH_2O	No / Yes	

Part B (Completed by Nurse) ** Circle when appropriate **

- Percutaneous / Surgical OR End Tracheostomy (for old case of tracheostomy)
- Date of stitches removal for incision site:______, tube anchorage:______ (for case of initial tracheostomy insertion only)
- Initial wound packing: No / Yes (If yes, *Please refer to the Wound Packing Record (MR/NSD/0564)*

Tracheostomy Tube Changes

Date	Type/ size	Cuffed: Pressure (recommended 20-30cmH₂O)		Fenestrated	Name of the doctor
		No / Yes:	cmH_2O	No / Yes	
		No / Yes:	cmH_2O	No / Yes	
		No / Yes:	cmH_2O	No / Yes	
		No / Yes:	cmH_2O	No / Yes	
		No / Yes:	cmH_2O	No / Yes	

- Date of decannulation: ______ (for initial tracheostomy insertion)

Part C (Completed by Nurse) Fill the number in the below table upon transfer out
(*Remarks: Case of difficult airway is not suggested transferring to convalescent hospital)

Date					
• *Dual lumen*: 0) No / Yes, Cleansing frequency 1) BD 2) Q8H 3) others: ______					
• *Cuffed*: 0) No / Yes, Pressure: 1) ______ cmH_2O 2) ______ cmH_2O 3) ______ cmH_2O					
• *Schedule of cuff inflation*: 0) No / Yes, specify 1) ____ 2) ____ 3) ____ 4) ____					
• *Oxygen therapy via*: 0) No / 1) Trach. mask 2) HME 3) Speaking valve 4) HFO with trach. mask 5) HFO with trach. interface 6) Others: ______					
• *Secretion management*: 1) Open suction 2) Closed suction system 3) Self-managed via tracheostomy 4) Self-expectorate via mouth 5) Others: ______					
• *Humidification*: 0) No / 1) HME 2) Active humidifier 3) Saline nebulizer as prescribed 4) HFO machine 5) Others: ______					
• *Communication*: *Non-verbal*: 0) Non-communicable 1) Writing 2) Gesture 3) Cue card 4) Lip reading; *Verbal*: 4) One-way valve 5) Intermittent finger occlusion 6) Fenestrated tube 7) Others: ______					
• Tracheostomy *stoma care*: 1) Keyhole gauze 2) Other:					
• *Weaning schedule (if any)*: 0) No / Yes, specify: 1) ______ 2) ______ 3)					
Completed					

(*For references*) **Emergency equipment**

- Tracheostomy kit: 1 same size and 1 smaller size of tracheostomy tube, tracheal dila
  pediatric facemasks, tube holder, lubricant and keyhole gauze
- Bag-valve-mask device / resuscitator and, Oxyge equipment
- Resuscitation trolley with Emergency airway i nt +/- ETC

RECORDING FORM FOR PATIENTS WITH TRACHEOST

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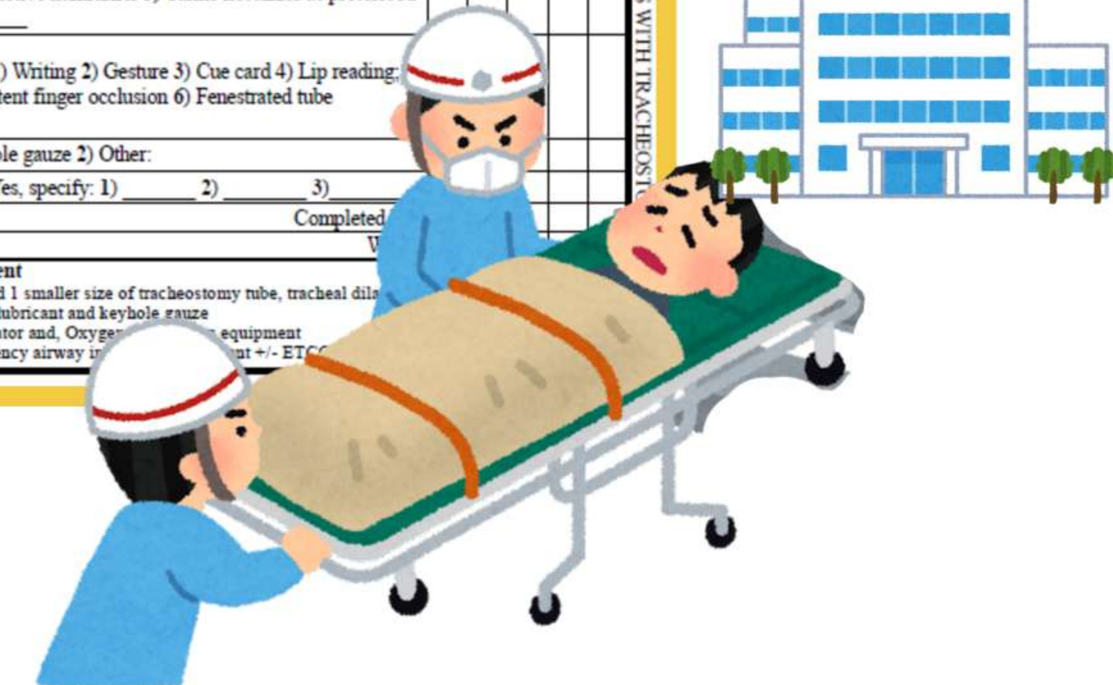

Education and Implementation (Nov 2024)

Building a learning pathway from orientation to advanced practice

Basic Life Support Workshop

Tracheostomy Care Workshop

Advanced Airway Management

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Evaluation: Frontline Feedback (Sept 2025)

Respondents:

100 frontline staff (77 nurses, 23 doctors)

9 clinical departments (A&E, ANA, ENT, ICU, M&G, NSD, O&G, O&T, SUR)

%	
>8 years (Experinece)	45%
RN (Nurse)	53%
RS (Doctor)	44%
SUR (Dept)	51%

%	
Useful	86%
Understand	84%
Knowledge	88%
Decision Marking	86%
Execution	86%
Interdisciplinary Communication	87-91%

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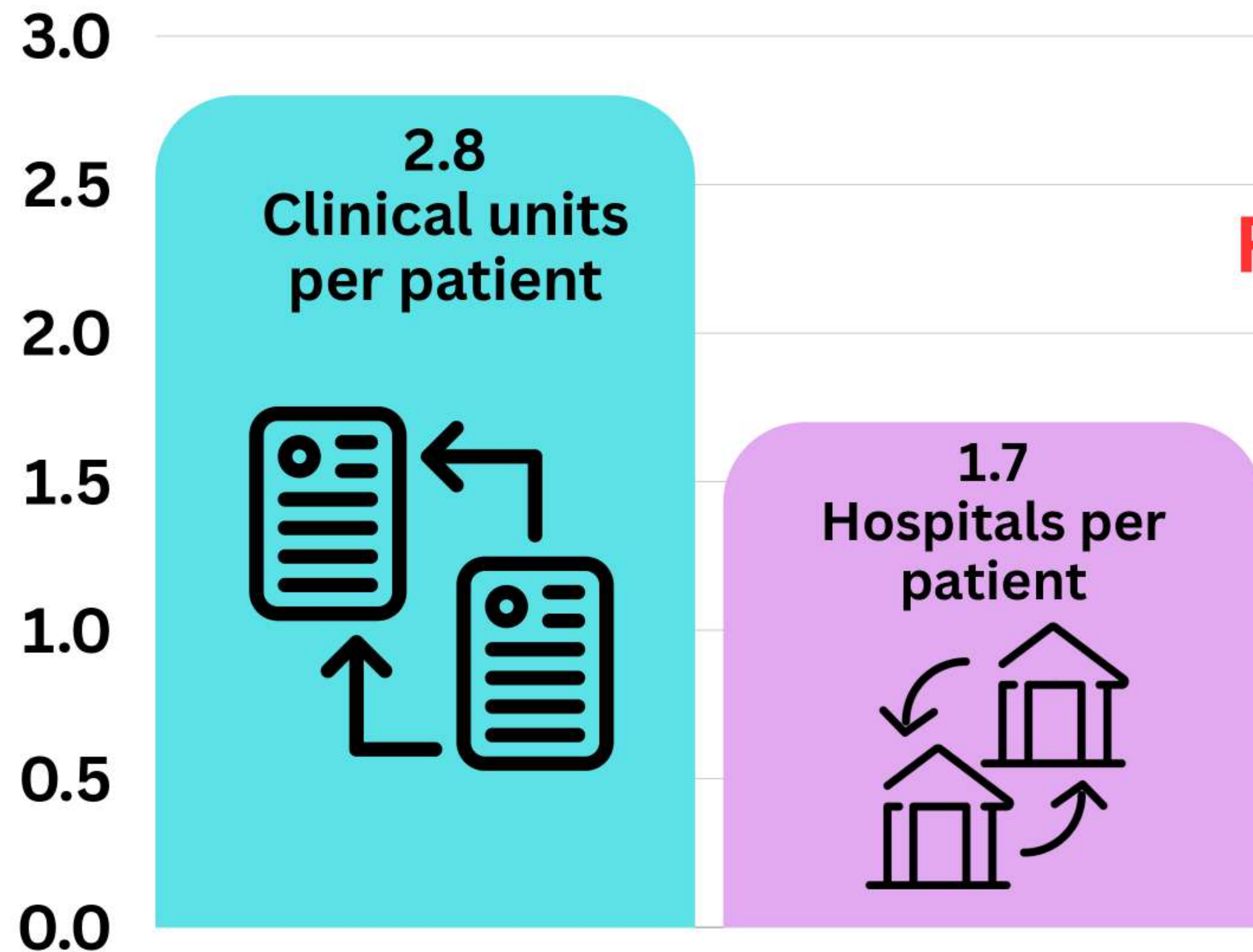
Evaluation: Patient Journey Review (23 Cases)

Clinical Units   Hospitals



Data validates the project’s focus:

- Complex journeys

Findings:

- Handover documentation completeness: 72% – 83%

Clinical Safety & Quality Service

Committed Staff & Professional Service

- Evidence-based cognitive aids
- Reliable handover tool

Teamwork

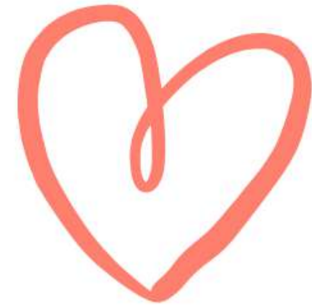
- Shared language
- Unified team approach

People-centred Care

Proactive & coordinated management

Conclusion

Clinical Safety, Team Performance, Communication



Cognitive Aids - address immediate crisis

Recording Form - secure handovers

Planned Enhancements

Visual Optimization	Strengthen Simulation Training	Explore Cluster-wide Adoption
Bold key steps for better readability	Build team familiarity through scenarios	Scalability as a corporate product

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Clinical Safety and Quality Service –
Safeguarded by multidisciplinary collaboration and teamwork

Acknowledgement

Thank You to:

All participating UCH doctors (ANA, A&E, ENT, ICU, Resp, Surg), KEC Nurse Consultants (Periop, Resp, Intensive, Emerg, ENT)

UCH Nursing Services Division colleagues

KEC Quality & Safety Office colleagues

Every frontline colleague dedicated to patient care