

A collaborative initiative to address potential safety risks in intrahospital patient transitions

Nursing Leadership Network
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Who we are

UNITY HEALTH
TORONTO

PROVIDENCE
Healthcare

ST
JOSEPH'S
HEALTH CENTRE TORONTO

St. Michael's
Inspired Care.
Inspiring Science.

St. Michael's Hospital

- Catholic teaching and research hospital
- Provides care for inner city
- Downtown Toronto's adult trauma centre
- Provincial major site for critical care
- Affiliated with University of Toronto
- Li Ka Shing Knowledge Institute



Objectives

At the end of the presentation, learners will be able to:

- Describe potential safety risks associated with intrahospital patient transitions
- Describe a corporate initiative to address potential intrahospital transfer safety risks
- Describe the journey of a patient at various transition points and show the application of the decision-making guidelines and documentation tools
- Reflect on opportunities for continuous quality improvement in intrahospital patient transitions



Intrahospital Transfer of Accountability

The process of ensuring the safe transport of patients within the hospital

Guideline for the internal transportation of critically ill patients within St. Michael's Hospital

ED

ICU

ICU

Medical Imaging

OR/PACU

ICU

ICU

Inpatient Unit

Guidelines for intrahospital transfer of accountability processes for adult non-critically ill patients

Inpatient Unit

Inpatient Unit

Inpatient Unit

Medical Imaging

Medical Imaging

Inpatient Unit



The Canadian Adverse Events Study: the incidence of adverse events among hospital patients in Canada

G. Ross Baker, Peter G. Norton, Virginia Flintoft, Régis Blais, Adalsteinn Brown, Jafna Cox, Ed Etchells, William A. Ghali, Philip Hébert, Sumit R. Majumdar, Maeve O'Beirne, Luz Palacios-Derflingher, Robert J. Reid, Sam Sheps, Robyn Tamblyn

The NEW ENGLAND JOURNAL of MEDICINE

SPECIAL ARTICLE

PATIENT SAFETY

Improving Safety with Information Technology

David W. Bates, M.D., and Atul A. Gawande, M.D., M.P.H.

SYSTEMATIC REVIEW

Interventions employed to improve intrahospital handover: a systematic review

Eleanor R Robertson,¹ Lauren Morgan,¹ Sarah Bird,² Ken Catchpole,³ Peter McCulloch¹



Broken Telephone?



REVIEW PAPER

A qualitative meta-synthesis of patients' experiences of intra- and inter-hospital transitions

Lisbeth Uhrenfeldt, Hanne Aagaard, Elisabeth O.C. Hall, Liv Fegran, Mette Spliid Ludvigsen & Gabriele Meyer

Fear, stress and unpredictability



Safety Risks

“A single transfer often involves multiple handoffs between various health care providers and other personnel, presenting frequent opportunities for error to occur.” (Ong, Biomeade & Coiera, 2013)

- Delays in tests, diagnoses, treatments
- Wrong patient, wrong test, wrong location
- Lack of appropriate monitoring (personnel and equipment) during transport
- Interruptions to required therapy (e.g. medications, oxygen, IV)
- Critical information missing (e.g. precautions, isolation status)
- Delayed recognition of changes in patient status



Background and Context

- Accreditation standards
- RNAO BPG on Care Transitions
- Lack of intrahospital guidelines → inconsistent practices
- Recommendation of Quality Improvement Council (QIC)



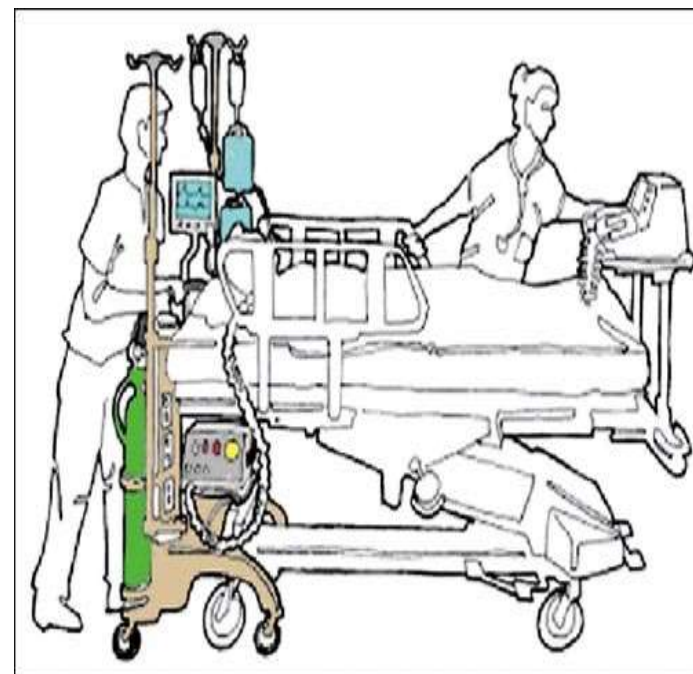
“Safe patient transfer guidelines need to be developed to identify patients at risk during intra-hospital transfer with clear processes for mitigating risk of harm.”



Case Scenario

Bob is a 40-year-old mechanic who presented in the Emergency Department (ED) with a history of a sudden onset of mid-abdominal pain radiating to his back. The pain awakened him at 4 that morning. He vomited several times. The emesis did not relieve his pain. He recently vacationed in a Cuban resort with his family where he took advantage of the open bar.

While in ED, his condition deteriorated requiring mechanical ventilation and fluid resuscitation. The ED team is now transferring Bob to the MSICU.



What are the elements of ED to ICU ToA ?



ED → ICU ToA

Collaborative initiative:

- ED
- TNICU
- MSICU

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Patient ID

Page 1 of 1

Emergency – ICU RN Transfer of Accountability (TOA) Checklist

The signatures at the bottom of this document indicate that both RNs participated in the TOA process. An unticked box indicates that the information was inapplicable or unavailable at the time of TOA.

Date: _____		Time: _____	
Transfer To:	<input type="checkbox"/> TNICU	<input type="checkbox"/> MSICU	
Location of TOA:	<input type="checkbox"/> ICU	<input type="checkbox"/> CT	<input type="checkbox"/> Angio
Patient Information:			
<input type="checkbox"/> ID band	<input type="checkbox"/> Incident Hx	<input type="checkbox"/> Medical Hx	<input type="checkbox"/> Allergies
<input type="checkbox"/> Isolation	<input type="checkbox"/> Code status		
Patient Assessment:			
<input type="checkbox"/> Airway	<input type="checkbox"/> Breathing	<input type="checkbox"/> Circulation	<input type="checkbox"/> GCS
<input type="checkbox"/> Pupils	<input type="checkbox"/> Spine Precautions	<input type="checkbox"/> Limb Movement/Sensation	
Tests:			
<input type="checkbox"/> CT	<input type="checkbox"/> X-rays	<input type="checkbox"/> Labs	<input type="checkbox"/> Cultures
<input type="checkbox"/> Other _____			
Treatment:			
<input type="checkbox"/> Medications		<input type="checkbox"/> IV fluids/total intake & output	
<input type="checkbox"/> MTP/blood products		<input type="checkbox"/> TTM & Cooling start time	
<input type="checkbox"/> Lines/drains/tubes		<input type="checkbox"/> Special Equipment	
<input type="checkbox"/> Other _____			
Preliminary Findings and Current Issues:			
<input type="checkbox"/> Injuries/diagnosis (if known)		<input type="checkbox"/> Other Pertinent Findings	
<input type="checkbox"/> Plan (if known)		<input type="checkbox"/> Safety concerns (e.g. fall risk)	
Other:			
<input type="checkbox"/> Clothing/Valuables Form	<input type="checkbox"/> Language Barrier	<input type="checkbox"/> Family	
Notes:			
Emergency RN Print Name: _____		Signature: _____	
ICU RN Print Name: _____		Signature: _____	

RN = Registered Nurse ICU = Intensive Care Unit CT = Computed tomography Hx = History
GCS = Glasgow Coma Scale IV = Intravenous MTP = Massive Transfusion Protocol TTM = Targeted Temperature Management

Form No. (Assigned by Medical Media Centre) | Dev. 2017-02-08

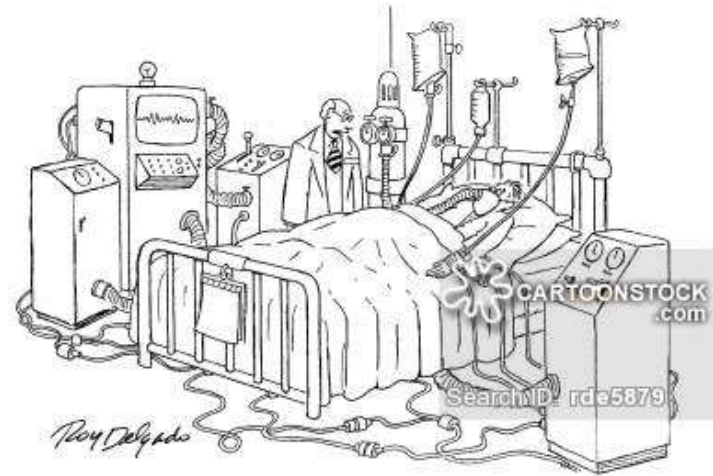
ED-ICU Transfer of Accountability Checklist - PAGE 1 of 1



Case Scenario

Dr. Smith ordered a CT of abdomen. Bob remains on mechanical ventilation. His blood pressure has been low and has been requiring low dose of Levophed to keep a mean blood pressure of 60s.

The MSICU team is now taking Bob to CT.



What are the elements of ICU to Medical Imaging ToA?



ICU ↔ Medical Imaging ToA

Guideline for the internal transportation of critically ill patients within St. Michael's Hospital

This guideline applies to critically ill patients transported to and from:

- ICUs
- Periop (OR and PACU)
- ED
- Diagnostic and procedure areas
- Inpatient units within SMH

Recommended Procedures:

- Assessment of IHT risks and benefits
- Pre-transport coordination and communication
- Accompanying personnel
- Accompanying equipment
- Monitoring during transport

Reference: <http://cpps/Default.aspx?cid=2153&lang=1>



Case Scenario

CT of the abdomen showed that Bob has a pancreatic tumor. The surgeon recommended a surgery to remove the tumor and send for biopsy.

The MSICU team is now taking Bob to OR.



What are the elements of ICU ↔ OR ToA?



ICU ↔ OR ToA

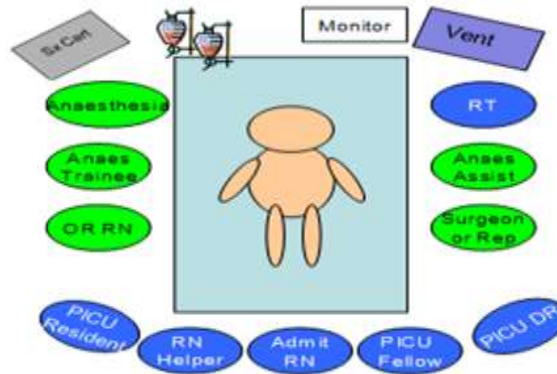
Elements of ToA

Source: *Critical Care Department ToA Committee*

Pre-transfer ToA



Pause



ToA Checklist

Perioperative-ICU Transfer of Accountability (TOA) Checklist

The signatures at the bottom of this document indicate that team members participated in the TOA process. An unticked box indicates that the information was non-applicable or unavailable at the time of TOA. See guiding principles on back of sheet.

Date: _____ Time: _____

Anesthesiologist	Surgeon or Delegate	Registered Nurse
Patient Elements <input type="checkbox"/> Identifying data <input type="checkbox"/> Isolation status <input type="checkbox"/> Surgical diagnosis & procedure <input type="checkbox"/> Pre-op code status History elements <input type="checkbox"/> Allergies <input type="checkbox"/> Focused medical history and relevant pre-admission medication history (e.g. Chronic steroids, opioids, clonidine, etc.) Intra-Operative Anesthetic Elements <input type="checkbox"/> Technique (general, TIVA, regional) <input type="checkbox"/> Airway Management Summary <input type="checkbox"/> Noteworthy aspects of case (e.g. Bronchoscopy, MTP, complications) Clinical Status Elements <input type="checkbox"/> Vitals + Neurologic Status c/w pre-op <input type="checkbox"/> Airway / Respiratory status (last ABG and ventilation settings, CPAP) <input type="checkbox"/> Medication infusions <input type="checkbox"/> Important medications given (Etomidate, steroids, opioids, NMBA, antibiotics, dexamethasone, mannitol) <input type="checkbox"/> Last NMBA dose <input type="checkbox"/> Lines / Tubes / Drains <input type="checkbox"/> Fluid Balance / EBL (include gastric, VAC dressing, chest tube output etc.) <input type="checkbox"/> Blood Bank Reserve / MTP Status <input type="checkbox"/> Last set of labs + Time (Hb, Na, K, Gluc, coags) Care Plan <input type="checkbox"/> Immediate management events in next 30 minutes <input type="checkbox"/> Treatment plan for post-op care (sedate and ventilate, wean, transfuse, etc.) <input type="checkbox"/> Anticipated problems	<input type="checkbox"/> Procedure specifics (include incisions, drains, specialized dressings) <input type="checkbox"/> Surgical events and complications <input type="checkbox"/> Surgical concerns <input type="checkbox"/> Post-op Instructions (eg. activity, diet, vitals, antibiotics, anticoagulants etc.) <input type="checkbox"/> Next of kin updated <input type="checkbox"/> New drains	<input type="checkbox"/> Bradis card <input type="checkbox"/> ID band <input type="checkbox"/> Allergy band <input type="checkbox"/> Blood products sent with patient <input type="checkbox"/> Limb/mobility restrictions <input type="checkbox"/> Personal belongings <input type="checkbox"/> Side rails up <input type="checkbox"/> Bed locked
Specific Patient Considerations		
Cardiovascular Surgery		
Cardiopulmonary bypass <input type="checkbox"/> Duration <input type="checkbox"/> Separation (e.g. DCR, pacing, vasoactive drugs, hemodynamic lability) <input type="checkbox"/> TEE (Pre- and- Post Bypass)		
Neurosurgery / Trauma		
<input type="checkbox"/> Pre-Op/Post-Op Neurologic Exam <input type="checkbox"/> Spine Precautions <input type="checkbox"/> Hemodynamic Goals <input type="checkbox"/> EVD/ICP Management Parameters <input type="checkbox"/> Medications administered (Osmotics, steroids) <input type="checkbox"/> Follow up Imaging Required <input type="checkbox"/> Location of ICP Monitor (EVD, SD, Camino) <input type="checkbox"/> Anticipated post-op neurological deficits		
PACU		
<input type="checkbox"/> Orders (CPAP, labs, APS) <input type="checkbox"/> For MSICU Type II Beds: MD-MD Communication <input type="checkbox"/> Designated Anesthesia MD for patient reassessment /		

Case Scenario

Bob's biopsy showed that the tumor is malignant. Treatment plans included chemotherapy. He has been off Levophed for 3 days. He is now on 40% FiO₂ at 4L/min via nasal prong. The MSICU MD has ordered for patient's discharge. The oncology team has accepted Bob to 2 Donnelly (Hematology/ Oncology).



The MSICU is now preparing to transfer Bob to 2 Donnelly.

What are the elements of ICU to inpatient unit (ward/floor) ToA?



ICU ↔ inpatient unit ToA

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ICU TRANSFER CHECKLIST

SECTION A: CLERICAL TO COMPLETE (DAY SHIFT), CHARGE NURSE (NIGHT SHIFT)

Patient's Name: _____ Date: _____
 Responsible RN: _____ ICU bed #: _____
 Time of bed assignment: _____ MS TN CV CCU
 Transfer to floor: _____ Room # _____ Ext. # _____
 Receiving service identified: _____ Receiving MD identified: _____
 Receiving service accepted: YES Time: _____
 NO If NO, reason refused: _____
 Receiving service changed to: _____ Initials: _____

SECTION B: CHARGE NURSE /NA AND BESIDE NURSE /NA

CHECK for General Internal Medicine order of acceptance on MD order sheet **on day of transfer**: "Patient seen and accepted by Team X. Please page Team X when patient arrives on the floor".

SECTION C: BESIDE NURSE TO COMPLETE (ENCIRCLE N/A IF NOT APPLICABLE)

<input type="checkbox"/>	RN Acknowledged COPE Orders	<input type="checkbox"/>	Clothing Form Completed
<input type="checkbox"/>	Transfer Orders are in Soarian	<input type="checkbox"/> /NA	All belongings packed (check locker)
<input type="checkbox"/> /NA	Pre-Discharge Orders Completed	<input type="checkbox"/> /NA	Personal Care Products Sent (contents of bottom 3 drawers)
<input type="checkbox"/> /NA	D/C IPCs unless going to 9CC or 4Bond (do not send MSICU machine)	<input type="checkbox"/> /NA	Notify Research Team of Discharge
<input type="checkbox"/> /NA	Arterial Line Removed	<input type="checkbox"/> /NA	Discontinue Research Intervention
<input type="checkbox"/> /NA	Cordis Removed	<input type="checkbox"/> /NA	Sitter/Constant Ordered
<input type="checkbox"/> /NA	Therapeutic Surface Required	<input type="checkbox"/> /NA	CCRT Follow Up Required
<input type="checkbox"/> /NA	Patient Transferred onto Surface	<input type="checkbox"/>	Transfer green card (addressograph)

/NA Telemetry
/NA Notify floor of equipment/Rx, e.g. PCA, Epidural, Vac®, Trach or CT suction, Low gomco, etc.
/NA Isolation Precautions needed: Contact: RCP:
 Confirm the transfer time with the floor
 Notify the patient's family of transfer to the floor, room number and new extension.# _____
 Unable to Contact: _____ Family aware of CCRT follow-up
 Family aware of nursing ratio on ward (no longer 1:1) *Leaving the ICU* brochure provided
 My Story transferred with patient
 Face to Face-ToA report given to Ward/ICU RN (includes safety check at bedside)

Reasons for transfer delay: _____

Time of Transfer: _____ Transferring Nurse (signature) _____

Please bring back a Blue Binder and copy of Clothing Form.
Return this completed form to the front desk for filing.

Ticket to Ward

Criteria for Patient to Move from ICU to Ward

Types of Patients:

- **CritiCall**: call sending facility each day to repatriate patient
- **Flexed patient who was never intubated**: remain under admitting service, call Step-Up daily
- **Flexed patient who was intubated**: discharge to **Medicine Team On-call** the day of discharge
- **General Internal Medicine Patients**: service must assess and accept. Acceptance should be written in the green order sheets on day of transfer
- **Medicine Sub-Specialties**: service notify and accepts
- **Surgical patients**: service notify and accepts
- **Palliative Care**: fax referral form, notify service, Palliative attending accepts
- **Psychiatry**: MD calls the Psych Consult line, attending Psychiatrist assesses and accepts
- **Stable patient requiring long-term ventilation**: complete ALC form

Medical Criteria for Transfer:

- Continuous airway and O₂ monitoring are not required
- All tubes requiring ICU monitoring have been discontinued
- Medications (requiring a monitored setting) have been discontinued, with no adverse events
- Continuous monitoring no longer required or patient can be managed on telemetry
- Patient's care can be met by a ward setting
- No further ICU intervention/treatment required

Patient No Longer Requires:

- FiO₂ > 40%
- suctioning < q3-4h
- VS < q4h (ideally q6h)

Receiving Unit: MSICU RN to inform charge nurse/unit delegate that patient requires

- Isolation
- Sitter
- Trach
- IV infusions
- High nursing requirements, e.g., complex dressings
- Extended stay in MSICU

Mandatory Prior to Discharge:

- CT Scan post tPa (for stroke patients) reviewed by Neurologist before transfer

Procedures/Tests Completed in MSICU Prior to Discharge, if possible:

- Dialysis
- CT Scan
- Scope
- IR

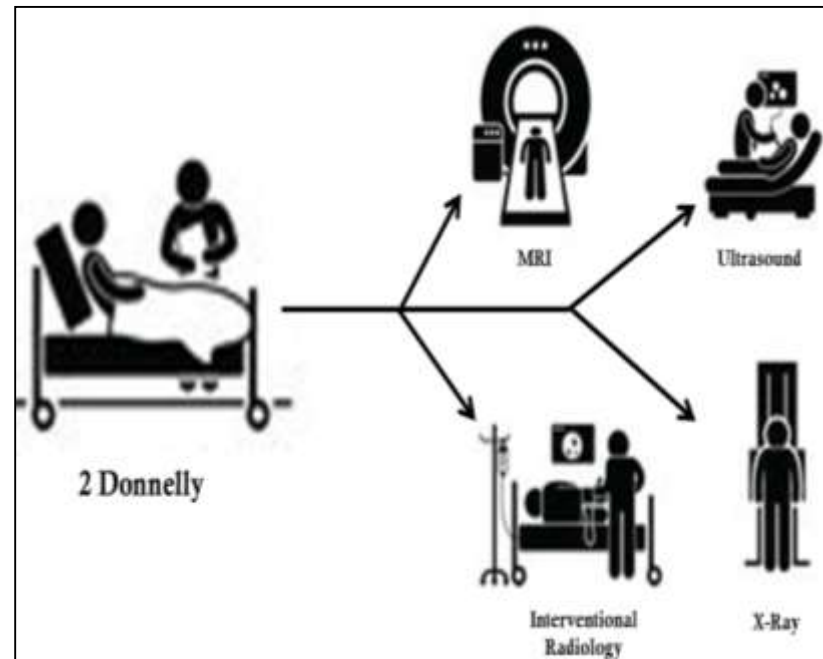
- Any Procedures/Tests Outstanding - MSICU RN to inform accepting unit



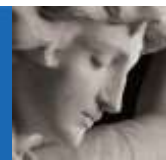
Case Scenario

Bob's temperature has increased to 38°. He vomited this morning. His abdomen is firm. His urine output in the last 8 hours has been less than 30 mL/hour.

The MD ordered CT of abdomen and ultrasound. The 2 Donnelly team is now getting Bob ready to go to medical imaging.



What are the elements of patient care area ↔ diagnostic area ToA?



Patient Care Area ↔ Diagnostic Area ToA

Guidelines for Intrahospital Transfer of Accountability for Adult Non-Critically Ill Patients

- Guidelines apply to adult non-critically ill patients transferred between
 - Patient care areas
 - Patient care area and diagnostic / therapeutic procedure area
- It provides recommendations to:
 - Health care professionals: HDs [MRTs], MDs, RNs
 - Intermediary personnel: CAs, PTAs/porters; clerical



Patient Care Area ↔ Diagnostic Area ToA

Guidelines for Intrahospital Transfer of Accountability for Adult Non-Critically Ill Patients

Essential Elements:

Assessing patient for transfer

Coordinating transport

Performing safety checks

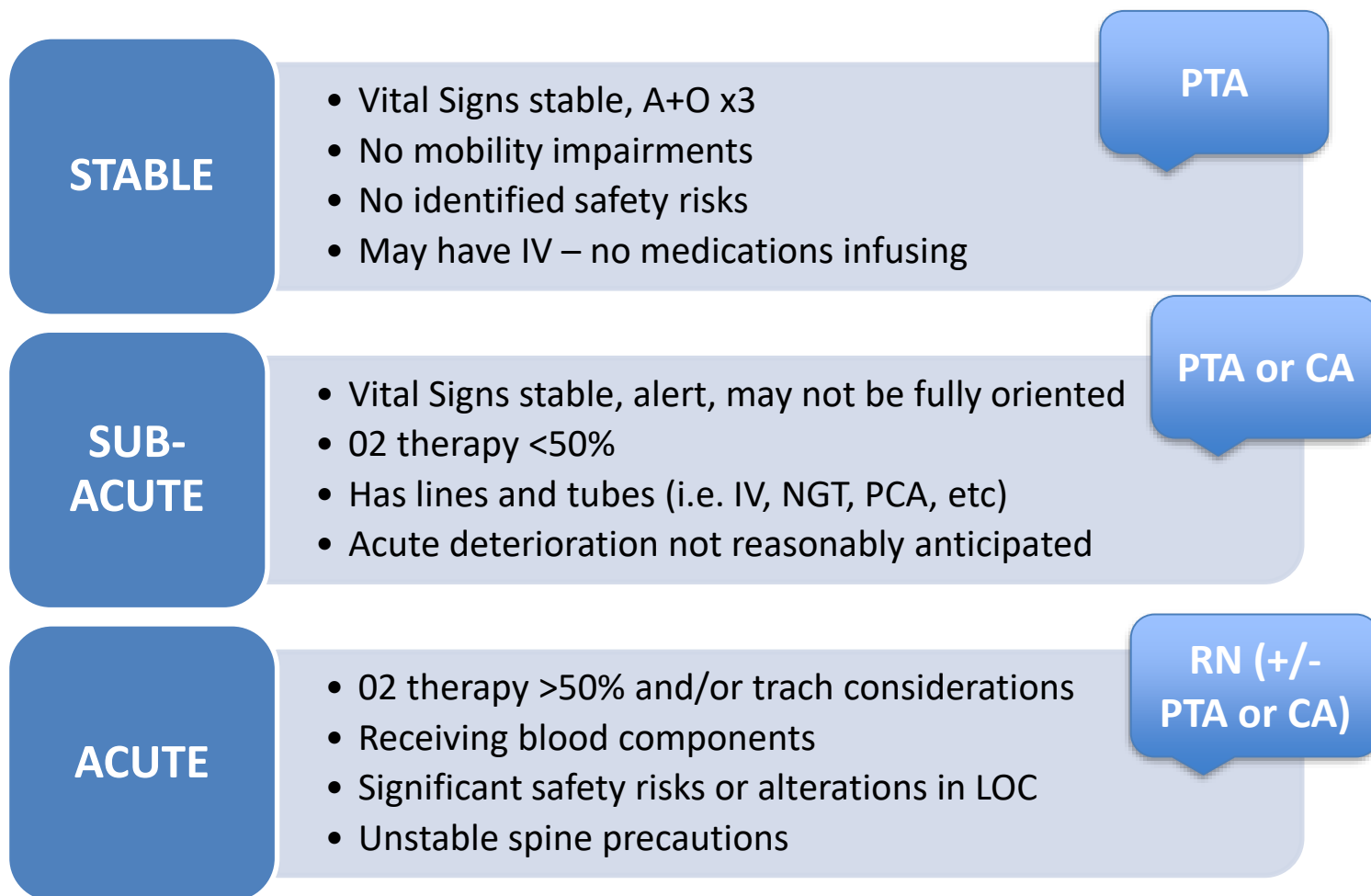
Coordinating transport

Engaging patient

Following a standardized format



Decision-Making Guidelines for Determining Appropriate Transport Personnel during Intrahospital Transfer



Safe Patient Transport Decision Guide to Diagnostic Area

Safe Patient Transport Decision Guide to Diagnostic Area			
Instruction: Team members to assess and discuss if patient is ready for transfer based on unit-based criteria.			
1. Is the patient's condition stable? (Refer to unit-specific medical and functional criteria for transport)	Yes	GO	
	No	Consider further	
2. Does the stable patient have severe limitations to mobility or cervical/thoracic/lumbar precautions? (patient is unable to ambulate without assistance or is unable to assist with transfer)	Yes	<ul style="list-style-type: none"> • Call testing area • Verify transfer assistance needs • CA/RN/MD/NP to accompany patient • Then GO 	
	No	GO	
3. For the patient in unstable condition:	A. Are there bedside alternatives for the procedure? (e.g. portable x-ray, portable ultrasound)	Yes	STAY
		No	Consider further
	B. Consult with healthcare team: Is transport to a lifesaving intervention?	Yes	<ul style="list-style-type: none"> • Protect airway, breathing, circulation • RN/RT/MD/NP to accompany patient • Then GO
		No	STAY
	C. Consult with healthcare team: Is transport to a diagnostic test pivotal to decision for emergent plan?	Yes	<ul style="list-style-type: none"> • Protect airway, breathing, circulation • RN/RT/MD/NP to accompany patient • Then GO
		No	STAY

Adapted from:
Day, D. (2010). Keeping patients safe during intrahospital transport. *Critical Care Nurse*, 30(4), 18-32.



Electronic ToA Tool: Unit to Medical Imaging

Cerner Cecilia Santiago 20 0 0/2 1

LABTEST, FREQFIVE | DOB: 05/05/1985(31y) ♂ | 3B-378B1 | Attending: Paul J Muller, MD

Allergies: (2) Multiple | Diagnosis: (0) | MR# 4004573 | ACCT#00270029408 | Neurosurgery | Admit Date: 06/17/2014 (700)

[Patient Record](#) | [Clinical Summary](#) | [Charting](#) | [Orders](#) | [Visit](#)

Ticket To Ride

Orders

Orders | eMAR Scheduled | eMAR PRN | eMAR Unspecified

+ Ticket to Ride | Sort Options

Code Status

Full Code

Activity & Limitations

Bedrest With Bathroom Privileges

Out of Bed Daily

Infection Control Status

Cystic Fibrosis (CF) Precautions

Respiratory

Titrate Oxygen to Maintain Oxygen Saturation Greater Than 92%

Assessments

Patient Assessment

6 Occurrences

	05/05/2016 09:51	05/05/2016 09:15	05/04/2016 09:15	03/09/2016 13:13	03/09/2016 12:49	03/08/2016 16:36	02/18/2016 10:22	02/04/2016 14:46	07/13/2015 08:14	06/19/2015 15:36
Oxygen Flow Rate (L/Min)										
FiO2 %	50									
Pain										
Pain WDS										
Pain Intensity at Rest	5									
Pain Intensity with Movement	8									
Neurological										
Neurological WDS										
Disoriented to										
Level of Consciousness										
Behaviour/Affect										
Speech										
Language Spoken										
Primary Language Spoken										English
Height & Weight										
Admission Weight (kg)					70	70	70		70	70
Height (cm)	70				70	70	70		70	70
IV Access										
IV Type #1										
IV Site #1										
IV Size (peripheral) #1										
IV Discontinued Date #1										
IV Type #2										

- Standardized tool used when transferring patients from an inpatient area to a diagnostic area
- Auto populate data (orders and clinical documentation)
- Only nursing responsibility- update data

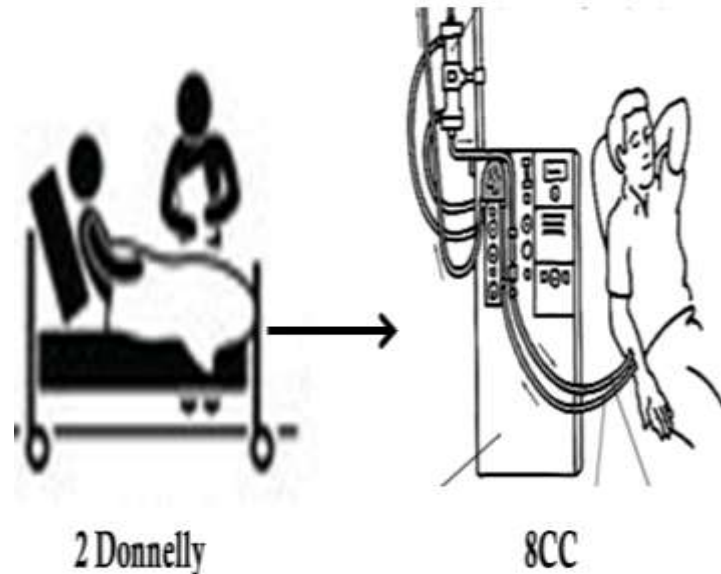
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Case Scenario

Bob's vital signs are stable.
However, his urine output has continued to be less than 30 mL/hour. His legs are swollen. His creatinine has jumped to 200 $\mu\text{mol/L}$ and potassium to 6 mmol/L.

He is diagnosed to be in acute renal failure requiring hemodialysis.

2Donnelly staff is preparing Bob for transfer to 8CC.



What are the elements of patient care area \leftrightarrow patient care area ToA?



Patient Care Area → Patient Care Area ToA

PATIENT: _____ ROOM: _____ DATE: _____

Safety Checks: Call Bell ID Band Oxygen/Suction Equipment Vascular Access

DAY	VITAL SIGNS	PAIN & PRN MEDS
	IN/OUT	DRESSING CHANGES
	BLOOD SUGARS	MISC/LAB TESTS
	FBS 11:30 16:00	SL FLUSH 14:00 <input type="checkbox"/>
	PATIENT TRANSFER SENDING/RECEIVING	
	CHART WITH BLUE CARD <input type="checkbox"/>	
	PO MEDS/ IV MEDS <input type="checkbox"/>	
	BELONGINGS <input type="checkbox"/>	
	MEAL TRAY <input type="checkbox"/>	

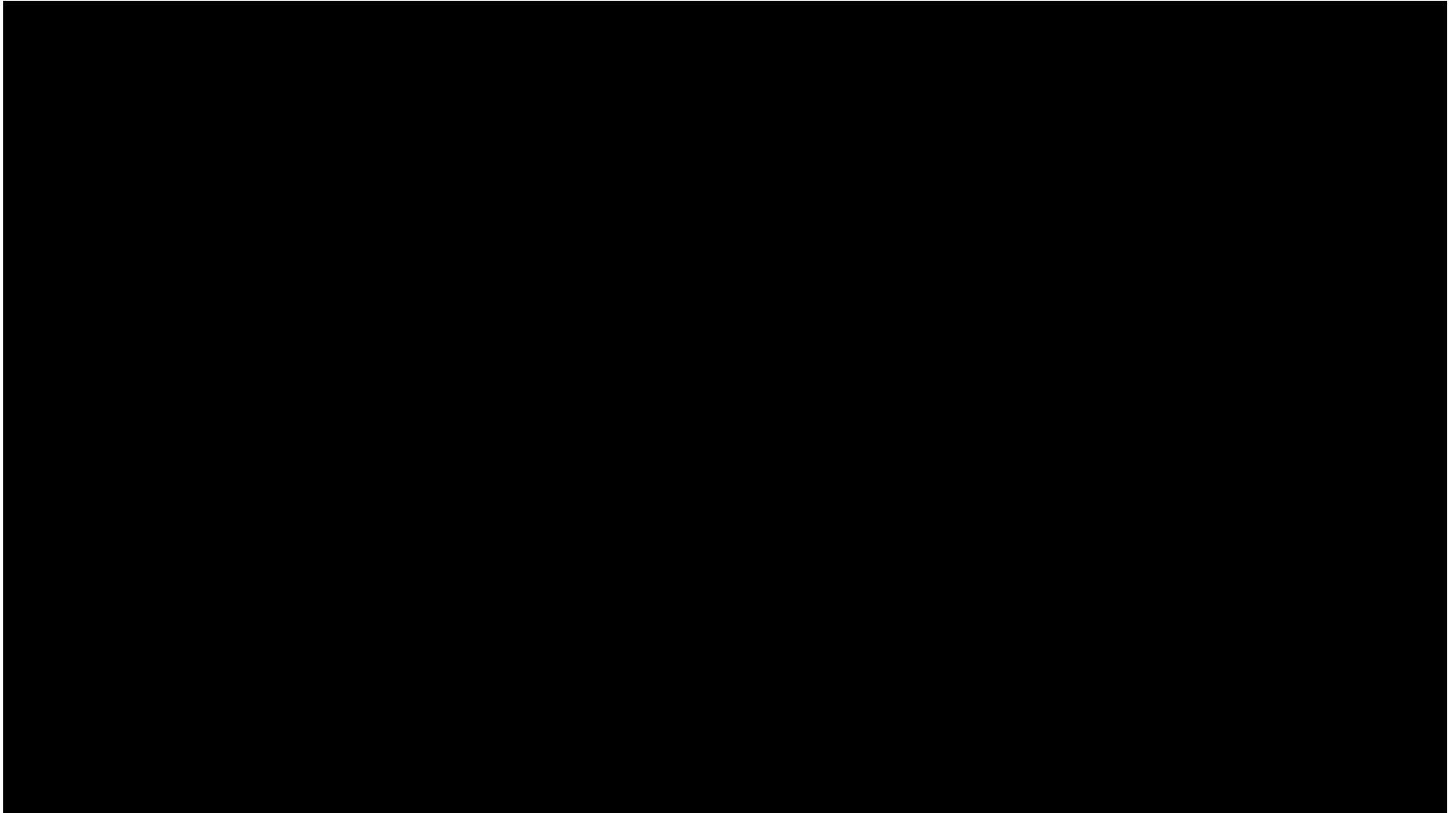
Building on existing ToA tool and adding intrahospital elements

Safety Checks: Call Bell ID Band Oxygen/Suction Equipment Vascular Access

NIGHT	VITAL SIGNS	PAIN & PRN MEDS
	IN/OUT	DRESSING CHANGES
	BLOOD SUGARS	MISC/LAB TESTS
	22:00 FBS	SL FLUSH 22:00 <input type="checkbox"/> 06:00 <input type="checkbox"/>



Intrahospital Transfer of Accountability



Program Development and Implementation

2013

- Pilot of paper intrahospital ToA tool

2014

- Current state analysis and stakeholder engagement

2015-2016

- Development and approval of intrahospital guidelines and tools

Feb. 2016

- Received REB approval to evaluate the initiative

July 19, 2016

- PPEC approved the Intrahospital ToA Guidelines

Sep. 2016 –
March 2017

- Development of education module
- Delivery of education to pilot areas

Sep. 2017

- Corporate education roll out

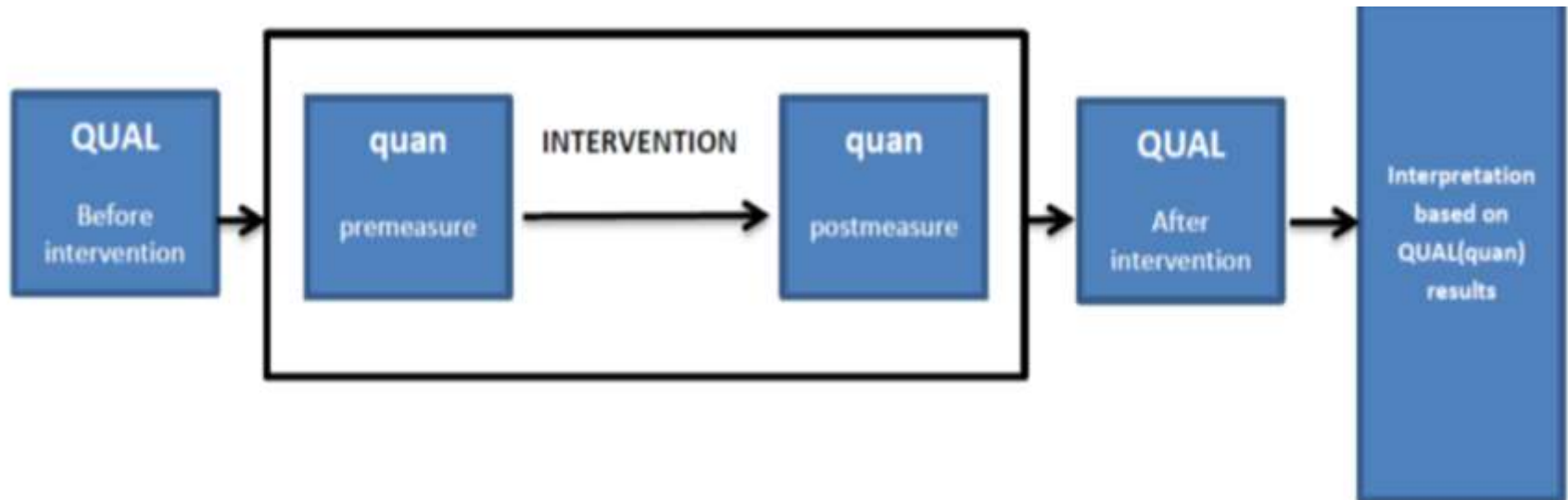


Program Evaluation

Sep. 2016 –
March 2017

- Pilot: 2 inpatient units, Medical Imaging, Patient Transport Department

n = 175 staff received education



REB study – data analysis phase



Program Evaluation

September 2017

- Corporate rollout

Eight-hour Train the Trainer – Clinical Nurse Educators and Nurse Champions

N = 18	Agree	Strongly Agree
The workshop content was relevant to my work	18.18%	81.82%
The resources and notes provided are relevant and useful	18.18%	81.82%
The education is likely to alter my practice in the workplace	36.36%	63.64%



Next Steps

Sustain



Transfer of	
ent Type:	Guideline
Depart	
Disci	



Spread



Summary

- Intrahospital transitions are vulnerable periods in a patient's hospital admission
- Intrahospital guidelines, decision making tools and communication systems mitigate risks during intrahospital transitions
- Using a standardized system embeds patient centred principles to optimize patient experience at care transitions



Thank you!



Questions?

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