



Great connection - Great care



**VINMEC TIMES CITY
INTERNATIONAL HOSPITAL**

Team Based Care: What is it and Why is it Important?

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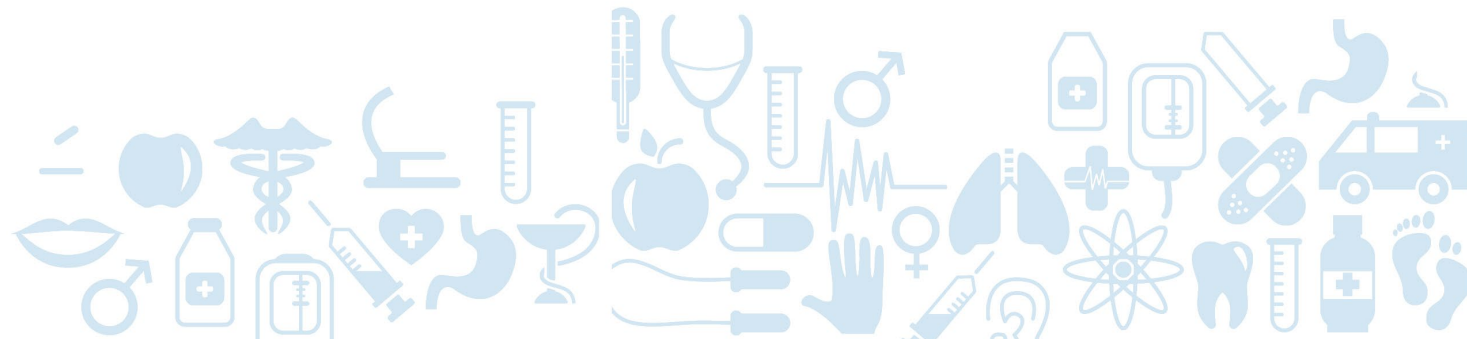
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Kathleen Vollman MSN, RN, FCCM, FAAN

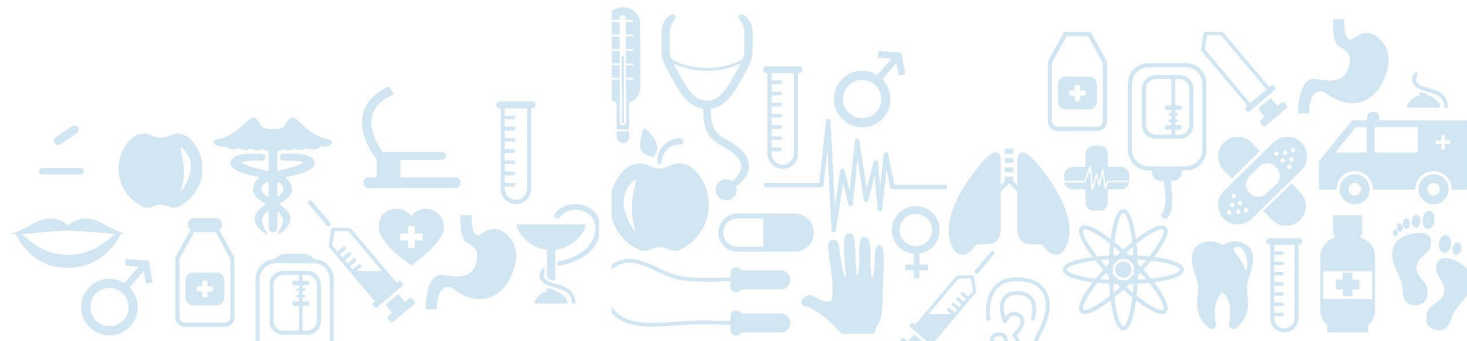


Objectives

- Define Team based Care
- Principles of Team Based Care
- Impact of Team Based Care
- Strategies to support team-based care in the ICU



Team-based care is a delivery model where patient care needs are addressed as coordinated efforts among multiple health care providers and across settings of care.



Promoting Patient Safety

Soloist
Practitioner

Health Care Complexity
Rapid Changes & Advancements

Team Based
Care

Principles of Team Based Care

- Shared goals,
- Clear roles
- Mutual trust
- Effective communication
- Measurable processes and outcomes



Optimal Team-Based Care Framework

1. Foster mutual trust and physical and psychological safety.



2. Clarify roles and expectations.



3. Practice effective communication.



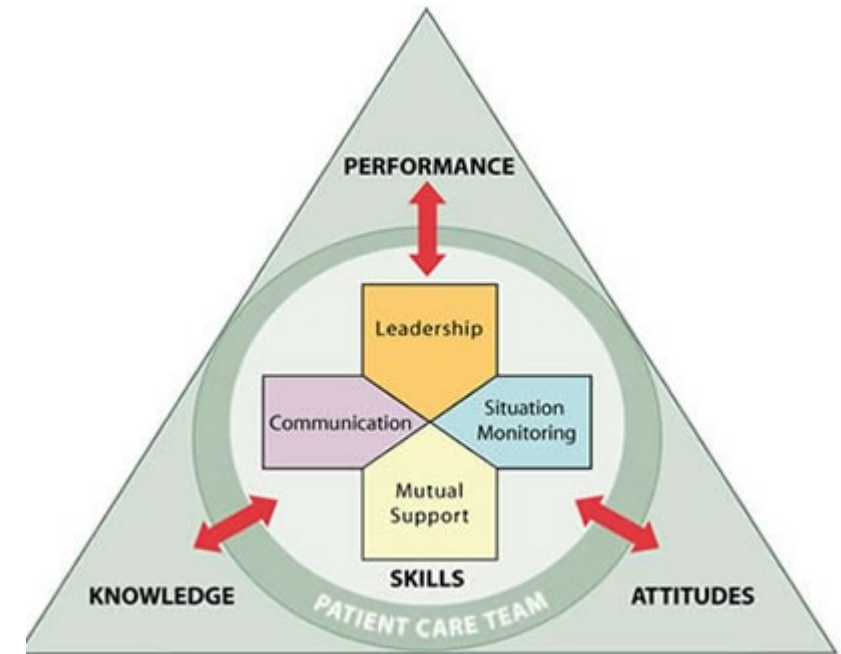
4. Track a set of shared measurable goals.



Shared responsibility without high-quality teamwork can be fraught with peril.

High functioning clinical teams are essential for the delivery of high value healthcare and have been associated with:

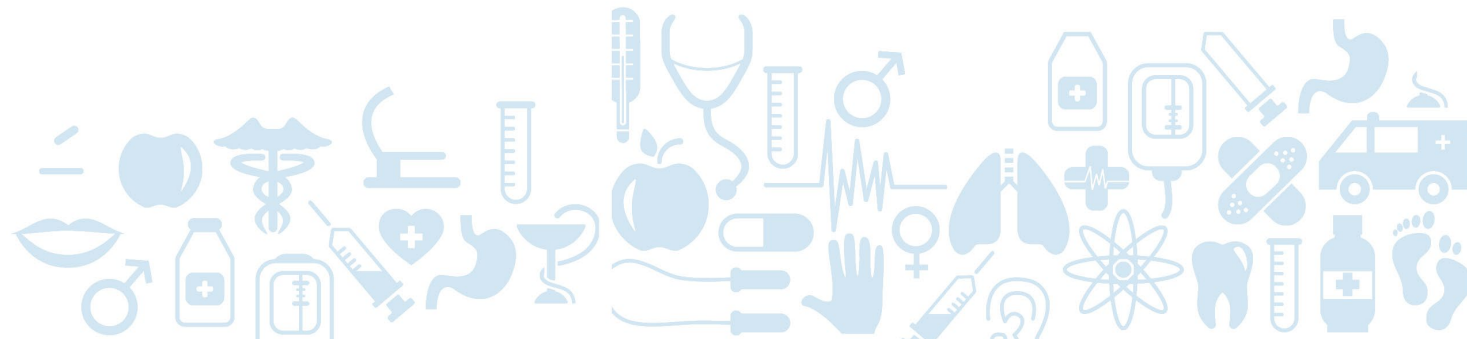
- Decreased workloads
- Increased efficiency
- Improved quality of care
- Improved patient outcomes
- Decreased clinician burnout/turnover



National Academy of Medicine

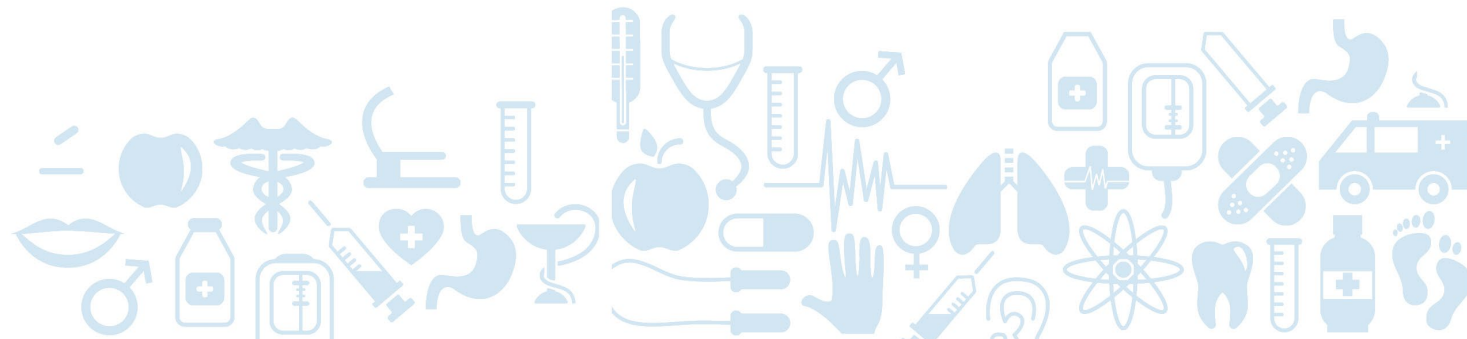
Examples

- Multidisciplinary Rounds
- Bundles of Care (team member roles)
- Handoff communication
- Rapid Response Teams (RRT)



Traditional Format of Rounds

- Led by the attending MD (Intensivist)
- If Residents in the ICU, they present first
- RN interjects (if they are assertive)
- Occurs outside of the room
- Families not included



Process Issues with Traditional Format

Missing health care team members
cause questions to remain
unanswered

Variations in round start times or
locations leads to waiting and looking
for team members

Discharge process may be held up r/t
missing members

Medical teaching

A blue silhouette of a person's head and shoulders. A white stethoscope is draped around the neck, with the chest piece resting on the right side of the chest.

- The unit
eting
- 

Multidisciplinary Rounds with Daily Goals – What is it?



- A strategy to assemble the patient care team members to review important patient care and safety issues
 - Improve collaboration on the overall plan of care for the patient
- Improve communication among care team and family members regarding the patient's plan of care
- Goals should be specific and measurable
- Checklist used during rounds prompts caregivers to focus on what needs to be accomplished
- Measure effectiveness of rounds—team dynamics, communication, quality measure compliance, LOS



Daily Goal Sheet



- A daily goals worksheet must be individualized to your particular ICU and the specific needs and traditions of your hospital.
 - What work needs to happen for the patient to leave the ICU?
 - What is the patient's greatest safety risk?
 - What will we do for each organ system or patient problem we identify?
 - Key processes for ventilator patients — have they been done?
 - Scheduled labs — have they been obtained/ordered?
 - Catheter — site care, inspection, consideration for removal?
 - Communication/family issues — have we talked to the family today?

www.ihl.org/IHI/Topics/CriticalCare/IntensiveCare/Changes/IndividualChanges/CreateaDailyGoalsWorksheet.htm

Evidence For Impact Of MDR Rounds

- Research studies on the effect of structured interdisciplinary rounds show:
 - Earlier identification of clinical issues
 - More timely referrals
 - Improved ratings by nurses and physicians on teamwork, communication and collaboration.
- Research also indicates variable effects on LOS and cost, with some studies showing improvement and others having no impact.

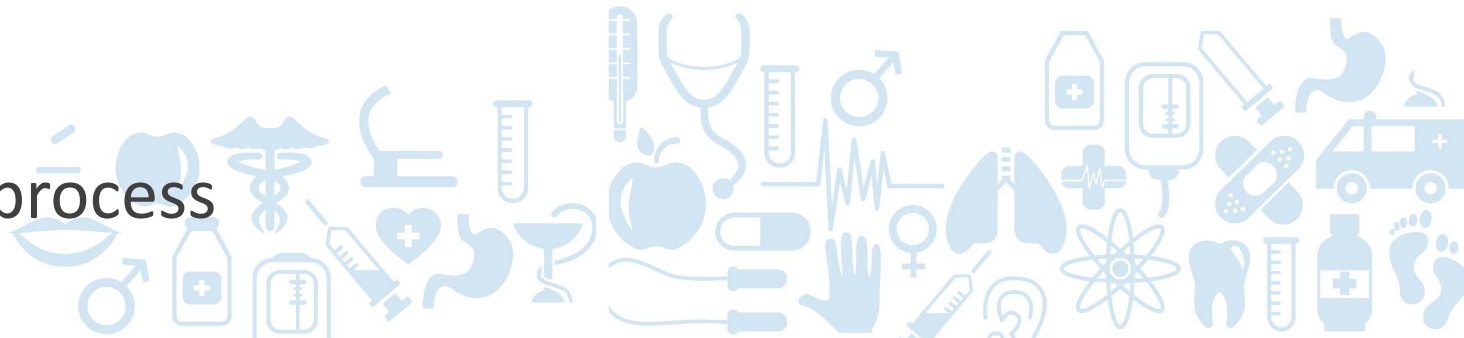
Improving teamwork: impact of structured interdisciplinary rounds on a medical teaching unit.

O'Leary KJ, et. al, *Journal Of General Internal Medicine [J Gen Intern Med]*, ISSN: 1525-1497, 2010 Aug; Vol. 25 (8), pp. 826-32; PMID: 20386996



Structure of MDR

- Time of day
- Frequency
- Process for each patient
 - Checklist
- Documenting
 - Which pieces of rounds?
 - Daily goal
- Define daily goal follow up process



Current State Assessment



What is the state of rounds on your unit?

- Describe unit structure (i.e. ICU, non-ICU, open unit, closed unit, intensivist, hospitalist)
- How often are rounds held?
- Who usually attends rounds?
- What are the roles of each member?
- Where do rounds usually take place?
- Is there a defined structure/process for rounds? If so what is it? Or does it depend on who is running them?
- How have rounds made a difference during the past year in improving the performance on your unit?
- What is the major barrier for multidisciplinary round implementation on your unit?



Attending:

Resident:

RN:

Intern:

Circle others in attendance: Pharmacy Nutrition Respiratory Therapy

Room #: _____

Rounding outside patient room:

yes no

Nursing notified:

yes no n/a

Nursing present during rounds:

yes no

RT present during rounds:

yes no

Checklist followed as outlined:

yes no

(If no, what objectives were omitted) _____

Sepsis screen, sepsis bundles reviewed/signed by team:

yes no

Daily goals in room board updated by intern:

yes

no

Plan of care/daily goals clarified with team:

yes no

Nursing questions/concerns addressed:

yes no n/a

Physician questions/concerns addressed:

yes no n/a

Patient/family questions/concerns addressed:

yes

no n/a

Were team members listening to each other:

yes

no

Did leaders ask others for input:

yes no

Feedback to team members (professionalism, team interaction, timeliness, efficiency, thoroughness, organization and clarity):

Was criticism positively presented:

yes no

RN Script

- They present the patient
 - VS, hemodynamic, drips then safety check list

Interdisciplinary Rounds; Nursing Objectives

1. Target RASS / Current RASS
2. CAM - ICU (results)
3. Current Sedative / Analgesic Infusions / Intermittent dosing
4. SAT / SBT – spontaneous awakening trial / spontaneous breathing trial
5. Mobility - what level is patient at?
6. Sepsis screen (results) / sepsis bundle (review bundle with team)
7. Current Vasoactive Infusions
8. Skin
9. Restraints – need / order
10. Foley – what is the score?
11. Nutrition / Bowel Regimen
12. Other: any procedures planned / nursing concerns / issues

96314-005 R 8/11 (MJD)

CHECKLIST ĐI BUỒNG ĐA CHUYÊN KHOA TẠI KHOA HỒI SỨC TÍCH CỰC

Họ tên bệnh nhân: Giường số: Ngày: / / 202_

Patient's
label

VẤN ĐỀ	NỘI DUNG		KẾ HOẠCH
HÔ HẤP	Thở máy	<input type="checkbox"/> KXN <input type="checkbox"/> XN	Ngày thứ:
	Oxy liệu pháp: dụng cụ:	<input type="checkbox"/> NKQ <input type="checkbox"/> MKQ	Ngày thứ:
	Phim X quang	<input type="checkbox"/> Có <input type="checkbox"/> Không L/phút
	VAP bundle	<input type="checkbox"/> Có <input type="checkbox"/> Không	
	Khác:	<input type="checkbox"/> Có <input type="checkbox"/> Không	
TUẦN HOÀN	Loạn nhịp	<input type="checkbox"/> Có <input type="checkbox"/> Không	Ngày thứ:
	TMTT / A - line	<input type="checkbox"/> Có <input type="checkbox"/> Không	
	CLABSI bundle	<input type="checkbox"/> Có <input type="checkbox"/> Không	
	Tiền gánh	<input type="checkbox"/> Đủ <input type="checkbox"/> Thiếu	
	Vận mạch: Noradrenalin: <input type="checkbox"/> Có <input type="checkbox"/> Không Dobutamin: <input type="checkbox"/> Có <input type="checkbox"/> Không Milrinone: <input type="checkbox"/> Có <input type="checkbox"/> Không		
TIÊU HÓA	Xuất huyết tiêu hóa do stress	<input type="checkbox"/> Có <input type="checkbox"/> Không	
	Trung tiện/đại tiện	<input type="checkbox"/> Có <input type="checkbox"/> Không	Số lần:
DINH DƯỠNG	Nuôi dưỡng đường tiêu hóa	<input type="checkbox"/> Có <input type="checkbox"/> Không	
	Đích năng lượng đạt	<input type="checkbox"/> Có <input type="checkbox"/> Không	
	Nuôi dưỡng tĩnh mạch toàn bộ	<input type="checkbox"/> Có <input type="checkbox"/> Không	
	Có dung nạp	<input type="checkbox"/> Có <input type="checkbox"/> Không	
THẬN	Có tổn thương thận cấp	<input type="checkbox"/> Có <input type="checkbox"/> Không	
	Nước tiểu 24h: ml	Mức lọc cầu thận = ml/phút	
	Thuốc lợi tiểu	<input type="checkbox"/> Có <input type="checkbox"/> Không	
	Lọc máu ngắt quãng/ Liên tục	<input type="checkbox"/> Có <input type="checkbox"/> Không	Ngày thứ:
	Sonde tiểu	<input type="checkbox"/> Có <input type="checkbox"/> Không	
HUYẾT HỌC VÀ ĐỒNG MÁU	CAUTI bundle	<input type="checkbox"/> Có <input type="checkbox"/> Không	
	Có thiếu máu	<input type="checkbox"/> Có <input type="checkbox"/> Không	
	Có chảy máu	<input type="checkbox"/> Có <input type="checkbox"/> Không	
	Có giảm tiểu cầu	<input type="checkbox"/> Có <input type="checkbox"/> Không	
	Có DIC	<input type="checkbox"/> Có <input type="checkbox"/> Không	
KẾ HOẠCH	Tiếp tục TM	<input type="checkbox"/> Có <input type="checkbox"/> Không	
	Thay, rút NKQ/MKQ	<input type="checkbox"/> Có <input type="checkbox"/> Không	
	Tiếp tục Oxy liệu pháp	<input type="checkbox"/> Có <input type="checkbox"/> Không	
	Chụp X quang	<input type="checkbox"/> Có <input type="checkbox"/> Không	
	VAP bundle	<input type="checkbox"/> Có <input type="checkbox"/> Không	

VẤN ĐỀ	NỘI DUNG CẦN THẢO LUẬN		KẾ HOẠCH
THẦN KINH	An thần, giảm đau	<input type="checkbox"/> Có <input type="checkbox"/> Không	Ngày thứ:
	RASS: đ	BPS: đ	GSC: đ
	Sàng lọc delirium	<input type="checkbox"/> Có <input type="checkbox"/> Không	
	Liệt	<input type="checkbox"/> Có <input type="checkbox"/> Không	
	Đồng tử	<input type="checkbox"/> Có <input type="checkbox"/> Không	<input type="checkbox"/> Bình thường
NHIỄM TRÙNG	Nguồn nhiễm trùng	<input type="checkbox"/> Có <input type="checkbox"/> Không	
	Kết quả cấy	<input type="checkbox"/> Có <input type="checkbox"/> Chưa	BP:
	Cách ly	<input type="checkbox"/> Có <input type="checkbox"/> Không	BPCL:
NƯỚC VÀ ĐIỆN GIẢI	Hạn chế dịch	<input type="checkbox"/> Có <input type="checkbox"/> Không	
	Bilan dịch: ml		
	Hạ Na; Kali	<input type="checkbox"/> Có <input type="checkbox"/> Không	
DẪN LƯU	Dẫn lưu:	<input type="checkbox"/> Có <input type="checkbox"/> Không	
	Vị trí 1/Tên DL:	Ngày thứ:	
	Vị trí 2/Tên DL:	Ngày thứ:	
	Vị trí 3/Tên DL:	Ngày thứ:	
THUỐC	Điều chỉnh liều	<input type="checkbox"/> Có <input type="checkbox"/> Không	
	Tương tác thuốc	<input type="checkbox"/> Có <input type="checkbox"/> Không	
	Chuyển tiêm sang uống	<input type="checkbox"/> Có <input type="checkbox"/> Không	
	Tác dụng không mong muốn:	<input type="checkbox"/> Có <input type="checkbox"/> Không	
HỘI CHẨN	Có cần hội chẩn chuyên khoa	<input type="checkbox"/> Có <input type="checkbox"/> Không	Chuyên khoa:
GIA ĐÌNH BỆNH NHÂN	Cần gặp người nhà bệnh nhân	<input type="checkbox"/> Có <input type="checkbox"/> Không	Nội dung:
TẬP PHCN	Tập vận động PHCN	<input type="checkbox"/> Có <input type="checkbox"/> Không	Ghi chú:
KẾT LUẬN			

Thành phần tham dự (Tên, ký)

BS ĐD BS DD DLS PHCN Khác

Standard Work System

- Standardized Work is a system for achieving a stable baseline for a process in order to systematically improve it.
- Standardized Work Systems are the basis for Continuous Improvement.

“What you permit, you promote”

“We deserve what we tolerate”



Robust Processes of Care Create Consistency & Reliability



On any given day in the ICU, the typical patient will require 178 interactions in their care

- Care Bundles

- Grouping of care elements for particular symptoms, procedures or treatments
- Strong science, good methodology, poor process
- Bundle characteristics
 - Solid evidence
 - Relatively easy & inexpensive
 - Individual components defined well
 - Process not defined well

- Checklists

- A checklist standardizes the process to ensure that all elements or actions are addressed.
- The structure and predictability of checklists facilitate the careful and systematic delivery of care and reduces variability
- Improve the reliable translation of information so the same knowledge is available

Winters BD, et. al. *Crit Care*. 2009;13(6):210.

Impact of Bundles & Checklists



• Bundles

- CLABSI insertion & maintenance bundles reduce infection and mortality³
- VAP Bundle: Reduce Infection & mortality⁴
- CAUTI Bundle: 60% decrease in infections⁵

Intervention Results Using INICC Multidimensional Approach.

Country	Pre-Intervention Rate/1000 central line days	Post-Intervention Rate/1000 central line days	% Decrease	Reference
Argentina	46.63	11.10	76%	Rosenthal et al., 2003
Colombia	12.9	3.9	73%	Alvarez-Moreno et al., 2016
Mexico	46.3	19.5	58%	Higuera et al., 2005
Turkey	22.7	12.0	47%	Leblebicioglu et al., 2013
India	6.4	3.9	39%	Jaggi et al., 2013
Saudi Arabia	6.9	3.1	55%	Al-Abdely et al., 2017
15 countries	14.7	9.7	34%	Rosenthal et al., 2010
5 countries (Pediatric ICU)	10.7	5.2	51%	Rosenthal et al., 2012
4 countries (Pediatric ICU)	21.4	9.7	55%	Rosenthal et al., 2013
Argentina (ICU)	9.6	4.1	57%	Rosenthal et al., 2018

• Checklists

- BSI insertion check list (reduction of CLABSI's)¹
- Surgical safety checklist (reduction in errors regarding surgical site)²

Teams are Critical For Implementation

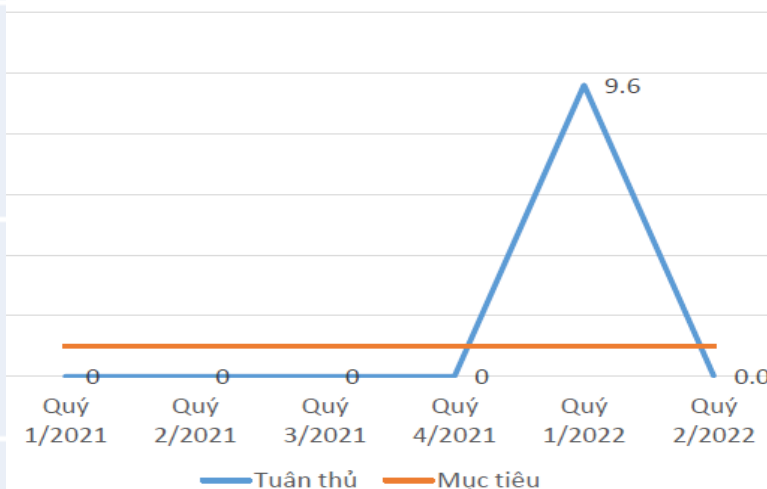
- Intensivist
- Critical care RN
- Pharmacy
- Physical Therapy

1. Pronovost P, et al. N Engl J Med. 2006;355:2725–2732.
2. Makary MA, et al. J Am Coll Surg. 2007;204:236–243
3. Lutwick L et al. International Journal of Infectious Disease. 2019;84:22-29
4. Pileggi C, et al. Crit Care Med 2018;46:1167-74.
5. Soundaram GV, et al. Indian J Crit Care Med. 2020;24(7):544-550

Implementation of VAP Bundle

VAP	Tỷ lệ viêm phổi liên quan đến thở máy trên 1000 ngày thở máy tại ICU/ VAP rate per 1000 ventilation days		Đang theo dõi/ On-going
	Tỷ lệ tuân thủ quy trình chăm sóc người bệnh thở máy (gồm Cho NB nằm đầu cao, Vệ sinh răng miệng và đo áp lực Cuff, Dự phòng loét dạ dày, dự phòng huyết khối, An thần) / Compliance rate of ventilated patients care bundle		Đã ngừng theo dõi từ quý 1/2021 Stop from Q1/2021
	Tỷ lệ số ngày người bệnh thở máy được thực hiện giảm an thần và nghiệm pháp tự thở theo đúng hướng dẫn của bệnh viện tại ICU/ Rate of ventilated patients having daily sedation interruption (DSI) and daily spontaneous breathing trials (SBT)	x	Không theo dõi, chuyển sang theo dõi chỉ số tuân thủ quy trình/ Not in use
	Tỷ lệ tuân thủ vệ sinh tay thường quy / Compliance rate of hand hygiene		Đang theo dõi/ On-going
	Tỷ lệ tuân thủ thực hành cách ly Vi khuẩn đa kháng/ Compliance rate of MDR bacteria isolation practice		Đang theo dõi/ On-going

Tỷ lệ viêm phổi liên quan đến thở máy trên 1000 ngày thở máy tại ICU/ VAP rate per 1000 ventilation days



Q1/2022: 1 case/104 days

Importance of Handoff Communication

- Joint Commission International Patient Safety Goal, required “a standardized approach to handoff communications”
 - Standardized, structured handoffs improve communication and patient safety.
 - I-PASS is a handoff program that decreases medical errors and preventable patient harm (from TeamStepps)
 - The I-PASS mnemonic is defined as illness severity, patient information, action list, situational awareness and contingency plans, and synthesis by receiver. (medical handover)-adapted to nursing
 - Resulted in perceived handoff error reduction post implementation

Blazin LJ, et. al.. *Pediatr Qual Saf.* 2020;5(4):e323.

Handoff Communication for Physicians

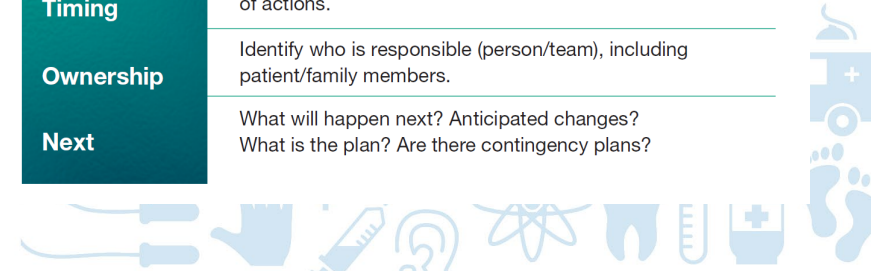
I P A S S	Introduction	Introduce yourself and your role/job (include patient).
	Patient	Name, identifiers, age, sex, location.
	Assessment	Present chief complaint, vital signs, symptoms and diagnosis.
	Situation	Current status/circumstances, including code status, level of (un)certainty, recent changes and response to treatment.
	Safety	Critical lab values/reports, socioeconomic factors, allergies and alerts (falls, isolation, etc.).
THE		
B A T O N	Background	Comorbidities, previous episodes, current medications and family history.
	Actions	Explain what actions were taken or are required. Provide rationale.
	Timing	Level of urgency and explicit timing and prioritization of actions.
	Ownership	Identify who is responsible (person/team), including patient/family members.
	Next	What will happen next? Anticipated changes? What is the plan? Are there contingency plans?



Vinmec Handoff: Currently in 2022

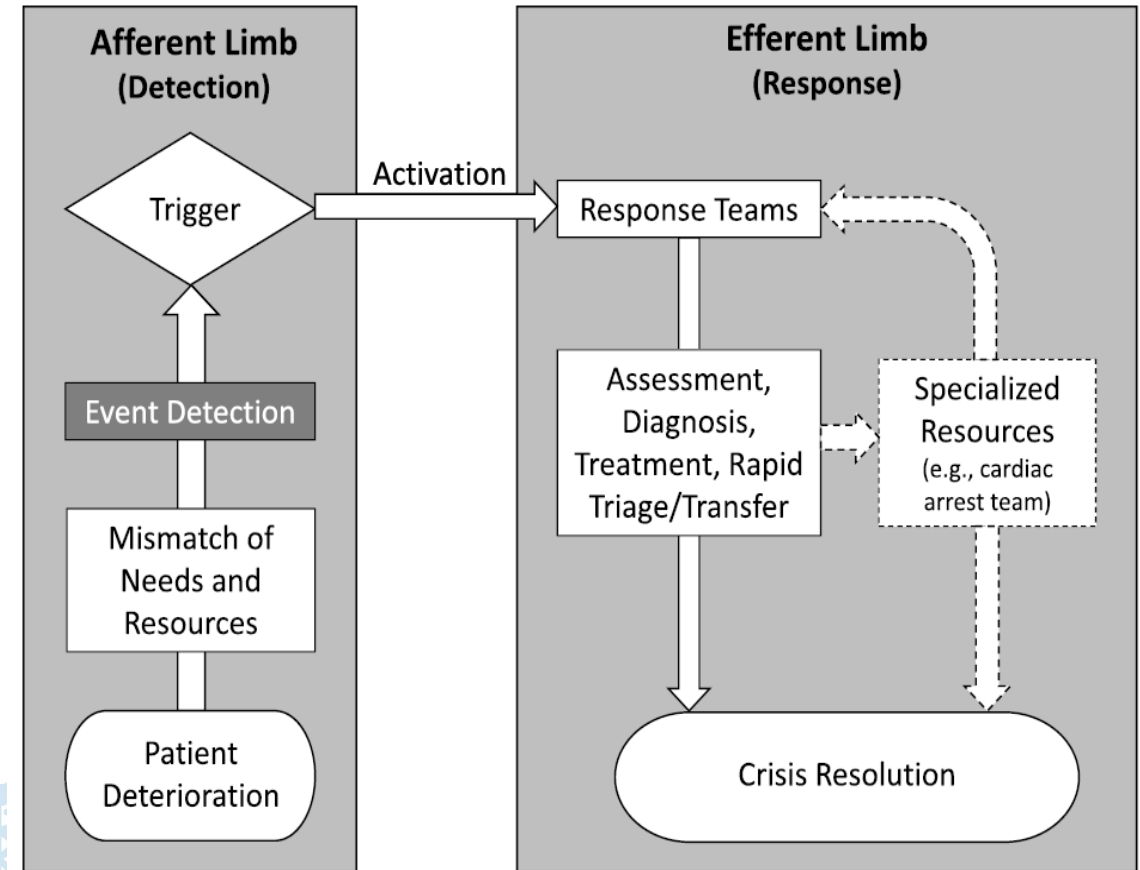
- Communication issues between shifts
 - Face to face, bedside
 - Documented
 - Checklist – SBAR
- Need to be improved
 - Plan of care
 - Full commitment with “IPASS the BATON”

I	Introduction	Introduce yourself and your role/job (include patient).
P	Patient	Name, identifiers, age, sex, location.
A	Assessment	Present chief complaint, vital signs, symptoms and diagnosis.
S	Situation	Current status/circumstances, including code status, level of (un)certainly, recent changes and response to treatment.
S	Safety	Critical lab values/reports, socioeconomic factors, allergies and alerts (falls, isolation, etc.).
THE		
B	Background	Comorbidities, previous episodes, current medications and family history.
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T	Timing	Level of urgency and explicit timing and prioritization of actions.
O	Ownership	Identify who is responsible (person/team), including patient/family members.
N	Next	What will happen next? Anticipated changes? What is the plan? Are there contingency plans?



Rapid Response Teams

- Introduced to improve quality of patient care
- Goal is to prevent avoidable patient progression to cardiac arrest
- Frontline staff to obtain help from experts when patient condition worsening
- MD & RN teams, Critical care RN
- Can be activated by RN's, Respiratory Therapist, other hospital staff & some include families
- Programmatic components measure process & outcome data for process improvement



Stolldorf DP, et al. *Jt Comm J Qual Patient Saf.* 2015;41(4):186-191.

Hall, KK. et al. *Journal of Patient Safety:* September 2020 - Volume 16 - Issue 3 - p S3-S7

Outcomes of RRT's: A Systematic Review



- 3-Meta-analysis, 3 systematic reviews, 4 single studies
- Mod to high quality
- Measure patient outcomes

Hospital Mortality

Significant↓
in hospital
mortality
rates

In-Hospital Cardiac Arrests

Significant↓
in non-ICU
cardiac
arrests (33%)

ICU Transfers

Data
inconclusive

- A culture of clear communication & teamwork facilitates effective RRT utilization
- A culture that discourages speaking up and supports a hierarchical structure can impede utilization of RRT

Hall, KK. et al. Journal of Patient Safety: September 2020 - Volume 16 - Issue 3 - p S3-S7

Vinmec Time City RRT

- MD & Critical care RN
- 24/7
- Number of calls per shift 1-2
- Outcomes:
 - Pre launch: 6 unexpected cardiac arrests
 - Post launch: 0 unexpected cardiac arrests.

When 'i' is
replaced By 'we'

Even
'illness'
Becomes
'Wellness'

B_INSPIRED



T together
E everyone
A achieves
M more

