



Role of Trauma Medical Director in Capacity Building

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Capacity building

“The process of developing
and
strengthening the skills,
instincts,
and abilities of the
organization”



Objective

To bring down preventable
deaths
of trauma victims



The strategic activities to achieve the objective ;

- Initial assessment and management
- Rapid and safety transfer
- Definitive treatment in nearby trauma center



Essential part of the Trauma center

- Basic and advanced life support ambulances
- Appropriate infrastructure, equipment, and manpower
- Skill training for medical personnel; doctors, nurses, EMTs, paramedics
- Communication networks
- Data collection



“The trauma center in Thailand has been categorized into 4 levels.

The role of TMD is to develop and maintain quality of their level.”



Trauma Center Level I

- Publish trauma research constantly
- Training for general surgery resident
- Training for fellow ship of trauma surgery
- High technology equipments and procedures, such as;
 - Embolization
 - Thromboelastrometry (ROTEM)
 - Endovascular surgery, Implantation
- Service of all major superspecialties associated with trauma



Trauma Center Level IV

- Initial assessment, management, and stabilization
- Focus on ABCDEs, resuscitation, adjuncts
- Safety transfer

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Various activities to strengthening trauma care

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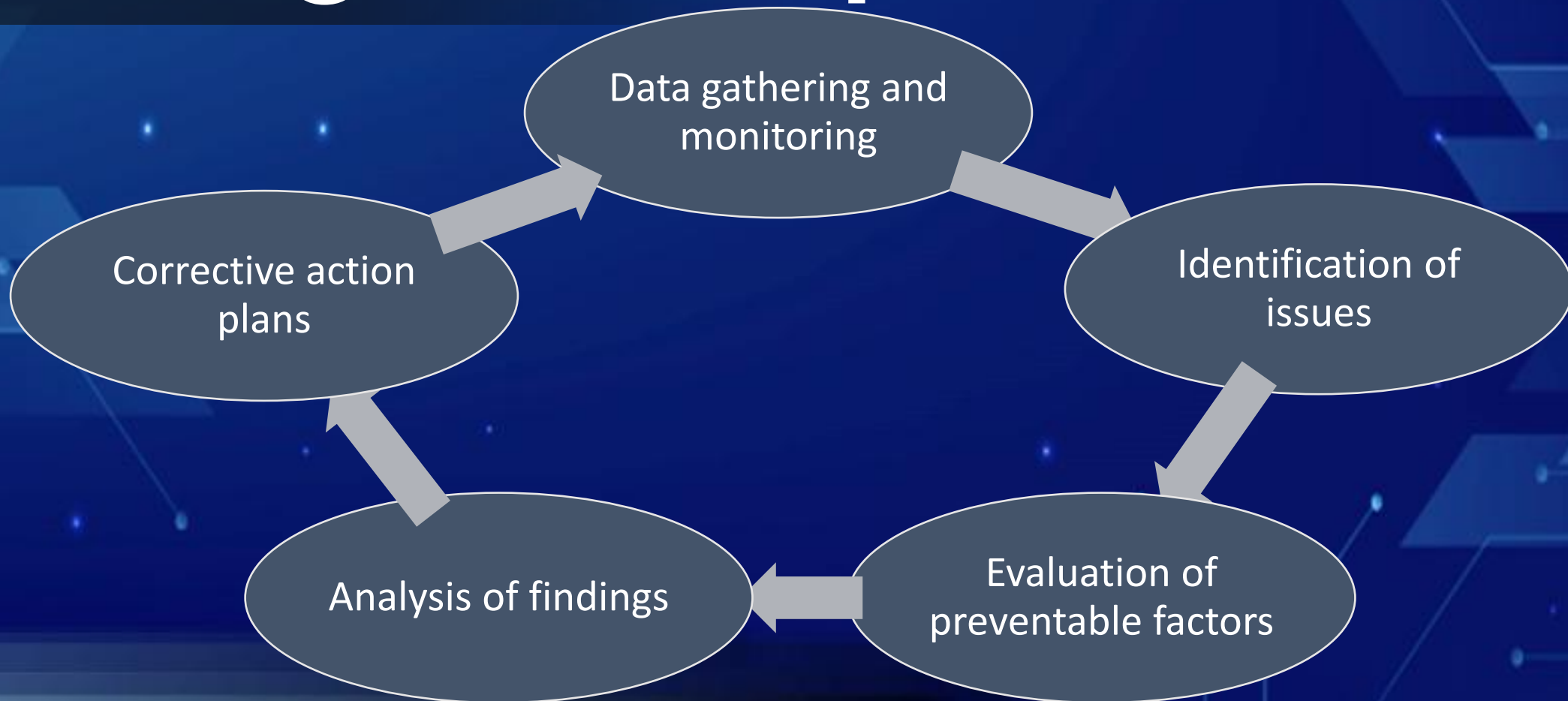


Key of success is ...

“Closing the loop”



Closing the loop





Activities aspects

- Patient care / services
- Trauma quality services improvement programs
- Educational and training program
- Research and development

Trauma Patient Care Services

- ER / OPD
- OR
- Inpatient
 - ICUs / wards



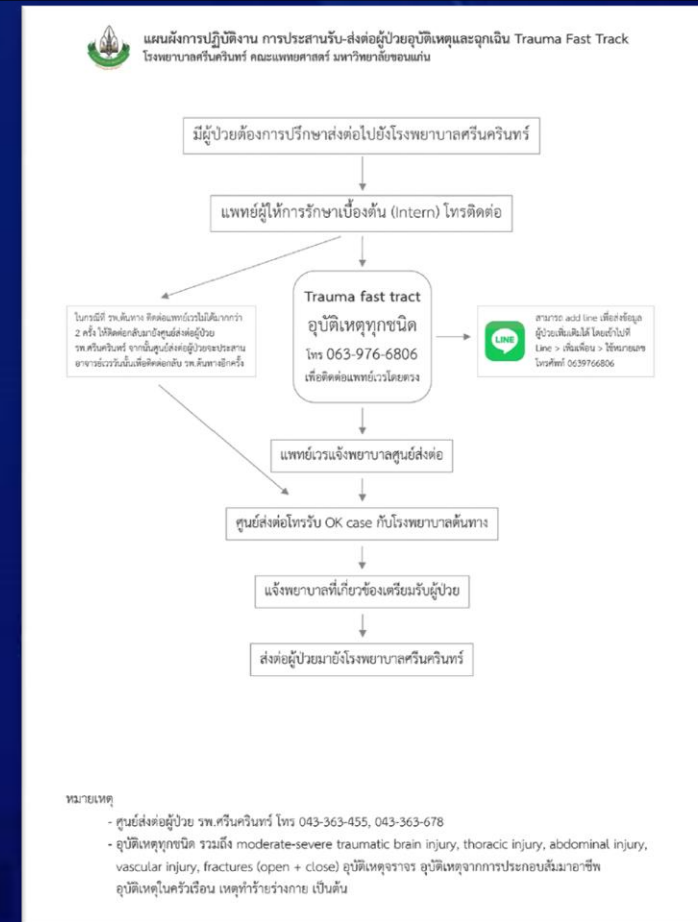
Trauma Patient Services



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- MOU between trauma center and rural hospitals
- Trauma fast track transfer



Trauma Quality Services Improvement Programs

ATLS

Advanced Trauma Life
Support

- For doctors, residency training
- Royal college of surgeons of Thailand
- American college of surgeons



Trauma Quality Services Improvement Programs

PHTLS

Pre-hospital
Trauma Life
Support

- ER nurses
- EMT / paramedics
- Doctors



Trauma Quality Services Improvement ASSET Programs

Advanced
Surgical Skills for
Exposure in
Trauma

- For surgeons and residency programs
- Cadaveric



Trauma Quality Services Improvement Programs

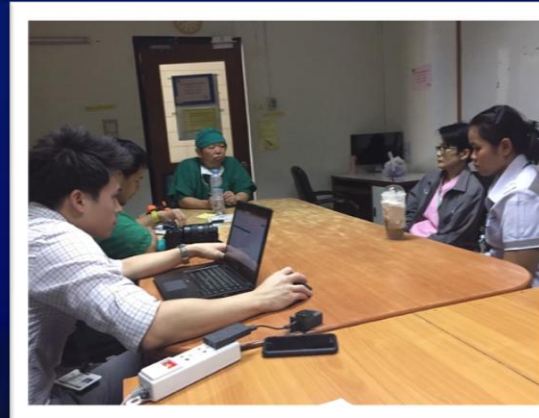
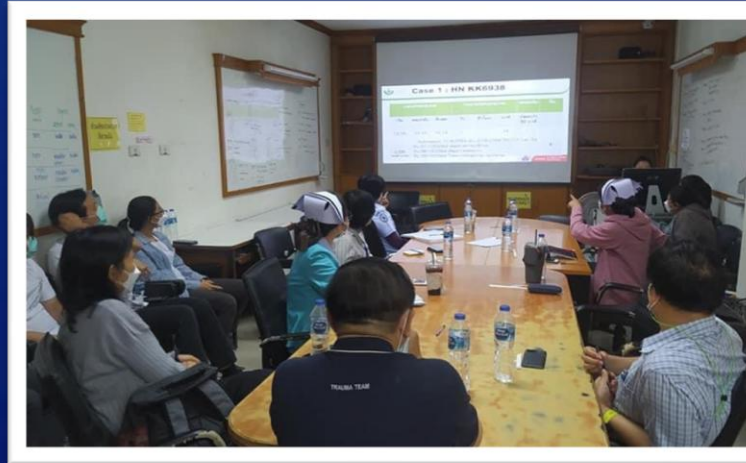
ER to OR
simulation

- To simulate workflow in trauma patient care between ER-OR-ICU



Multidisciplinary Team Conferences

- Trauma audit
- Transfer audit
- MM & preventable dead case conference
- Trauma grand round





Education & Training Programs

- Medical student training
- Surgery resident training programs (4-year- curriculum)
- Fellowship in Trauma surgery (2-year-curriculum)

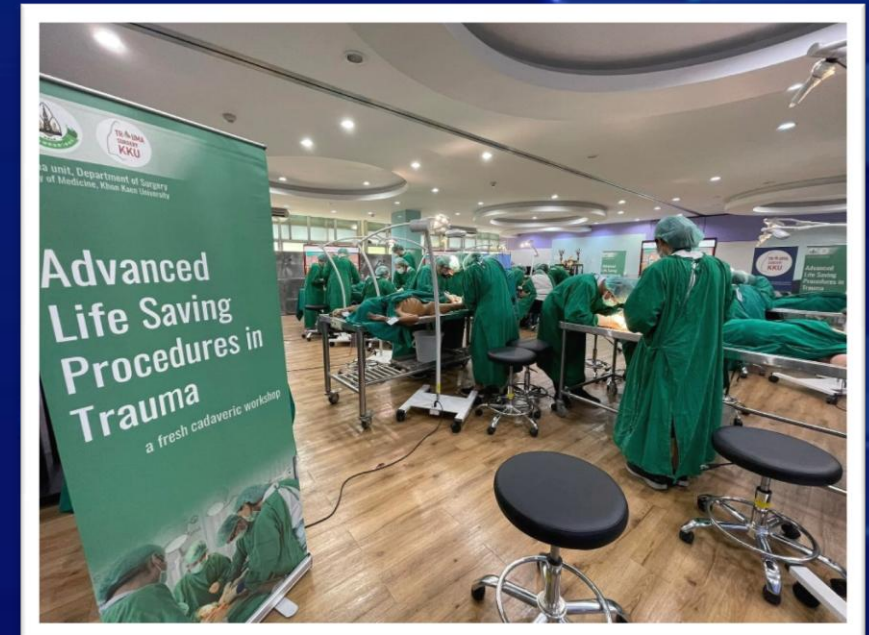
Acadamic Activities

- Trauma topic
- Journal club
- Interesting cases
- Essential procedures for trauma patient



Academic Activities

- Workshop for enhancing skills in trauma treatments
- Intercostal chest drain
- Venous cutdown
- Cricothyroidotomy
- Wound suturing



Acadamic Activities

Advanced Life Saving Procedures in Trauma

- Fresh cadaver
workshop



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Acadamic Activities



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Research and Developments

PubMed.gov Advanced

Search results

> Vasc Health Risk Manag. 2021 Aug 16;17:481-487. doi: 10.2147/VHRM.S322127. eCollection 2021.

Treatment Outcome of Traumatic Subclavian Artery Injuries

Parichat Tanmit¹, Phati Angkasith¹, Panu Teeratakulpisarn¹, Chaiyut Thanapaissal¹, Narongchai Wongkonkitsin¹, Supatcha Prasertcharoensuk¹, Chaiwat Panich¹

Affiliations + expand
PMID: 34429608 PMCID: PMC8379483 DOI: 10.2147/VHRM.S322127
Free PMC article

Abstract

Background: Traumatic subclavian thoracic cage and clavicle provide nerves and also cause a very limited modality is less invasive and alternative salvage.

Purpose: The purpose of this study was to evaluate the treatment outcome of traumatic subclavian artery injuries.

Methods: A retrospective review of

PubMed.gov Advanced

Search results

> Trauma Surg Acute Care Open. 2021 Aug 4;6(1):e000717. doi: 10.1136/tsaco-2021-000717. eCollection 2021.

What are the strongest indicators of intracerebral hemorrhage in mild traumatic brain injury?

Panu Teeratakulpisarn¹, Phati Angkasith¹, Thanakorn Wannakul¹, Parichat Tanmit¹, Supatcha Prasertcharoensuk¹, Chaiyut Thanapaissal¹, Narongchai Wongkonkitsin¹, Amnat Kitkhuandee¹, Wattana Sukepaisarnjaroen², Warinthorn Phuttharak³, Kittisak Sawanyawisuth²

Affiliations + expand
PMID: 34429608 PMCID: PMC8340271 DOI: 10.1136/tsaco-2021-000717

Background and Objective: Traumatic brain injury is a leading cause of death and disability worldwide. Intracerebral hemorrhage (ICH) is a common complication of traumatic brain injury (TBI). The purpose of this study was to identify the strongest indicators of ICH in mild TBI.

Methods: A retrospective review of 100 patients with mild TBI who underwent CT scans of the head. The strongest indicators of ICH were identified by comparing the CT scan findings with the clinical and laboratory data.

PubMed.gov Advanced

Search results

> Int Med Case Rep J. 2021 Mar 30;14:199-204. doi: 10.2147/IMCRJ.S300774. eCollection 2021.

A Life Saving Emergent Temporary External Carotid Artery Controlled in Extensive Craniofacial Injury

Parichat Tanmit¹, Phati Angkasith¹, Panu Teeratakulpisarn¹, Chaiyut Thanapaissal¹, Palakorn Surakunprapha¹, Amnat Kitkhuandee¹, Phumtham Limwattananon¹

Affiliations + expand
PMID: 33833589 PMCID: PMC8019616 DOI: 10.2147/IMCRJ.S300774
Free PMC article

Abstract

Introduction: Craniofacial trauma may potentially have significant blood loss which may lead to death in some trauma patients.

Case report: We report a case of a 43-year-old male who had a lethal noncompressible arterial hemorrhage from a penetrating wound on his left frontotemporal and preauricular region. Extensive bleeding was successfully temporarily controlled by external carotid artery (ECA) occlusion. The definitive operation was completed in a staged fashion following a computed tomography angiography assessment extension of the injury.

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Search results

> Open Access Emerg Med. 2021 May 18;13:183-188. doi: 10.2147/OAEM.S311421. eCollection 2021.

A Life Saving Emergency Department Resuscitative Endovascular Balloon Occlusion of the Aorta (REBOA) with Open Groin Technique

Panu Teeratakulpisarn¹, Phati Angkasith¹, Parichat Tanmit¹, Chaiyut Thanapaissal¹, Supatcha Prasertcharoensuk¹, Narongchai Wongkonkitsin¹

Affiliations + expand
PMID: 34040460 PMCID: PMC8140941 DOI: 10.2147/OAEM.S311421
Free PMC article

Abstract

A 53-year-old male pedestrian was hit by a car and arrived at our hospital with a blunt abdominal injury and hemorrhagic shock. Resuscitative Endovascular Balloon Occlusion of the Aorta (REBOA) was performed in a timely fashion using the open groin technique in the emergency room. The procedure resulted in rapid improvement of hemodynamic status while the bleeding source was controlled. Recently, REBOA is a proper adjunctive procedure in major non-compressible torso hemorrhage patients. The procedure requires a portable X-ray or fluoroscopic machine in the ER to

บทคัดย่อฉบับเต็ม - Original Article

ปัจจัยที่ส่งผลต่อความผิดปกติจากเอกซเรย์คอมพิวเตอร์ในกรณีสมองบาดเจ็บไม่รุนแรงที่มีความเสี่ยงสูง

ปานู เตระตกุลพิสาร, ภาติ อังกาสิต, ปาริชาติ ตันมิต, THANAKORN WANNAKUL, CHAIYUT THANAPAISAL, DEPARTMENT OF SURGERY, FACULTY OF MEDICINE, KHON KAEN UNIVERSITY, THAILAND

Received: 30 November 2020
Accepted: 7 January 2021

Background and Objective: Traumatic brain injury is a leading cause of death and disability worldwide. Intracerebral hemorrhage (ICH) is a common complication of traumatic brain injury (TBI). The purpose of this study was to identify the strongest indicators of ICH in mild TBI.

บทคัดย่อฉบับเต็ม - Original Article

การศึกษาค่าตำแหน่งของการใช้บอลูนอุดกั้นในกรณีชีวิตในคนไทย

ปานู เตระตกุลพิสาร, ภาติ อังกาสิต, ปาริชาติ ตันมิต, สุพิชชา ประเสริฐเจริญกุล, DEPARTMENT OF SURGERY, FACULTY OF MEDICINE, KHON KAEN UNIVERSITY, THAILAND

Received: 16 April 2020
Accepted: 28 September 2020

Background and Objective: Major cause of trauma death worldwide is from non-compressible torso hemorrhage. Currently, Resuscitative Endovascular Balloon Occlusion of the Aorta (REBOA) plays role in control of intraabdominal bleeding. Therefore, it is necessary to use several methods to confirm the position of the balloon precisely, such as fluoroscopy. But most hospitals in Thailand do not support fluoroscopic machine in ER. This study aimed to determine the intravascular length for placement REBOA and compare to the appropriate locations of external landmarks of the body.

บทปริทัศน์วิชาการ - Review Article

การใช้อบอลูนอุดกั้นเส้นเลือดแดงใหญ่เพื่อห้ามเลือดในการกู้ชีวิตผู้บาดเจ็บในห้องฉุกเฉิน

ปานู เตระตกุลพิสาร, ภาติ อังกาสิต, ปาริชาติ ตันมิต, สุพิชชา ประเสริฐเจริญกุล, DEPARTMENT OF SURGERY, FACULTY OF MEDICINE, KHON KAEN UNIVERSITY, THAILAND

Received: 19 January 2021
Accepted: 19 February 2021

Background and Objective: Major cause of trauma death worldwide is from non-compressible torso hemorrhage. Currently, Resuscitative Endovascular Balloon Occlusion of the Aorta (REBOA) plays role in control of intraabdominal bleeding. Therefore, it is necessary to use several methods to confirm the position of the balloon precisely, such as fluoroscopy. But most hospitals in Thailand do not support fluoroscopic machine in ER. This study aimed to determine the intravascular length for placement REBOA and compare to the appropriate locations of external landmarks of the body.

Background and Objective: Major cause of trauma death worldwide is from non-compressible torso hemorrhage. Currently, Resuscitative Endovascular Balloon Occlusion of the Aorta (REBOA) plays role in control of intraabdominal bleeding. Therefore, it is necessary to use several methods to confirm the position of the balloon precisely, such as fluoroscopy. But most hospitals in Thailand do not support fluoroscopic machine in ER. This study aimed to determine the intravascular length for placement REBOA and compare to the appropriate locations of external landmarks of the body.

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ZZ1111	ภาณุ	ทดสอบ	ชาย	1409900312345
วันเกิด	เบอร์โทรศัพท์	หมายเหตุ		
30-01-1987	เบอร์โทรศัพท์	หมายเหตุ		

HN ZZ1111 ชื่อ ภาณุ ทดสอบ หมู่เลือด RH

วันที่ admission * 05-09-2022 น้าหนัก * 70 ส่วนสูง * 171

Chief complaint * ถูกทำร้ายร่างกาย 20 นาที

Primary Survey with Simultaneous Resuscitation

History * 20 นาทีก่อน เมาสุรา ทะเลาะวิวาท โดนคู่ใจใส่เคียว อัดนม เพื่อบั่นทอนส่ง รพ.

Airway Assessment [A] * Patent

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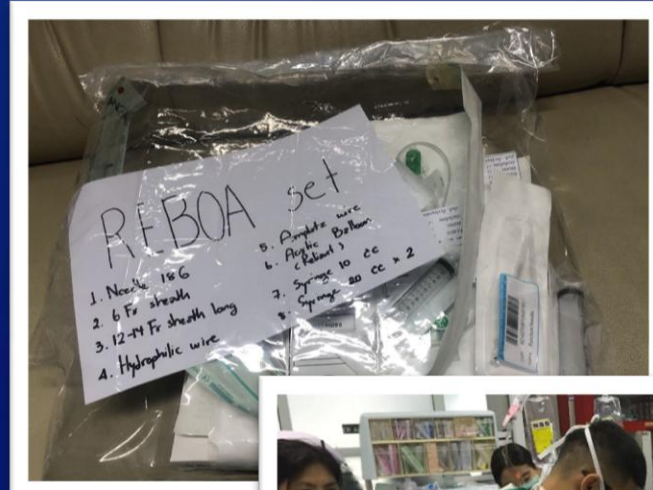
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New Procedures Developments



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Thank You