

SECC Congress 2026 Taipei 暨 2026 智慧急重症醫療國際會議/The 10th Asia-Pacific Conference on ICU Early Rehabilitation Taipei 2026

NTUH International Convention Center

OCT. 03 Day 1 Lecture

Time	<u>Lecture A (401)</u> ICU Rehabilitation for ICU physicians	<u>Lecture B (402)</u> Smart ICU Rehabilitation for therapists
09:00–09:40	Opening Ceremony(SECC)	
	<i>Chair: Dale Needham, Willy Chou</i>	<i>Chair: Chi Ryang Chung, Yin Yi Han</i>
09:45–10:15	Keynote 1: Why Early Mobilization is Important in Critically Ill Patients <i>Dale Needham—USA</i>	Keynote 2: Smart Rehabilitation Systems in the ICU and Post Acute Care Patients <i>Chi Ryang Chung—Korea</i>
10:15–10:45	Early Mobilization Timing & Safety: Creating an Integrated Team <i>Willy Chou—TACVPR Honor President</i>	Digital Platforms for Rehabilitation Data Collection, Team Integration and KPI <i>Hsiao Ching Yen & Yin Yi Han—Taiwan</i>
10:45–11:00	COFFEE BREAK	
11:00–11:25	Cardio-Pulmonary Rehabilitation and Ventilator Weaning for ICU patients <i>Ko Lung Lin—TACVPR President Taiwan</i>	Smart Mobilization Technologies in ICU: Intelligent Beds to Active-Passive Trainers <i>Wei Chun Huang—Taiwan</i>
11:25–11:50	<i>Early Mobilisation -post valve replacement surgery: No modern equipment, no problems</i> <i>Nguyen Ngoc Minh—Vietnam</i>	<i>Multi-disciplinary early rehabilitation team on ECMO patients</i> <i>Muhammed Aleef—Qatar</i>
11:50–12:05	QA	
12:20–13:20	Lunch Symposium (SECC)	
	<i>Chair: Yin Yi Han, Arnengsih Nazir</i>	<i>Chair: Ko Lung Lin, Wei Chun Huang</i>
13:30–13:55	Application of Body Composition Analysis and Bioelectrical Impedance Analysis in Critically Ill Patients <i>Zheng Yii Lee—Malaysia</i>	Early Mobilization Education Program for OT/PT Focus on the ICU Rehabilitation <i>Hajime Katsukawa, Tomoya Kuroda-Japan</i>
13:55–14:20	Sarcopenia and Nutrition therapy in the Critically Ill Patients <i>Yin Yi Han—Taiwan</i>	Skeletal Muscle Ultrasound Assessment of Muscle Atrophy in Critical Illness <i>Thomas Rollinson—Australia</i>
14:20–14:45	Nutrition Combined with Rehabilitation, Debate in evidence? What we may do? <i>Dorji Harnod –Taiwan</i>	<i>Recent Meta-analysis Studies of ICU Early Mobilization and the Method for Critics</i> <i>Nguyen Ngoc Minh—Vietnam</i>

Time	<u>Lecture A (401)</u> <u>ICU Rehabilitation for ICU physicians</u>	<u>Lecture B (402)</u> <u>Smart ICU Rehabilitation for therapists</u>
14:45– 15:00	<i>Penal Discussion</i>	
15:00– 15:15	<i>COFFEE BREAK</i>	
	<u>Chair: Yu Chang Yeh, Leong Be Kim</u>	<u>Chair: Hajime Katsukawa, Thomas Rollinson</u>
15:15– 15:40	Avoid Delirium with Minimized Sedation, Tips from the PADIS Guideline in the ICU Yu Chang Yeh—Taiwan	Collaboration Between Physiotherapists, Nurses, and ICU Physicians for ICU Rehabilitation Safety Balachandran Jayachandran—Singapore
15:40– 16:05	Neurorehabilitation Approach for Disorder of Consciousness in Critical Care Patients Leong Be Kim—Malaysia	What is the Best Way to Engage the Team Work in the Post Acute Care Patients Rashmi Suvedi—Nepal
16:05 – 16:30	Rehabilitation with Delirious TBI patient. Design the Save Mobilization Program Hsiao Ching Yen—Taiwan	What is the Best Way to Engage the Team Work in the ICU. Experience from Taiwan Chin Ming Chen—Taiwan
16:30 – 16:45	Panel Discussion for Delirium control Yu Chang Yeh, Leong Be Kim, Hsiao Ching Yen	Panel Discussion for Team Work Balachandran Jayachandran, Rashmi Suvedi, Chin Ming Chen
16:50 – 17:30	<u>Poster Presentation, Meet the Experts</u> Group photo for experts in the first day Dale Needham & all the experts	<u>Oral Presentations Session I II III</u> Chair: Balachandran Jayachandran, Rashmi Suvedi, Chin Ming Chen

OCT. 04 Day 2 Lecture and Workshop

BEST TEAM COLABORATION EXPERIENCE SHARING

Time	<u>Lecture (401)</u>	
08:00– 08:30	Breakfast with PhysioFlow 趙克耘副主任 從急重症到心肺功能重建：向心與離心腳踏車運動與心輸出量監測	<u>Chair: Dorji Harnod</u>
	<u>Chair: Dorji Harnod, Chin Ming Chen</u>	<u>Workshop1 (NTU, College of Medicine 5F)</u>
08:30– 09:00	Latest Evidence for ICU Rehabilitation and Future Directions Dale Needham—USA	Chinese Workshop (Baxter Pulmonary) <i>From Bed to Better: Creative Early Mobilization in the ICU</i> Jing Hui Chung, Yi Shan Tsai—Taiwan
09:00– 09:30	Creating ICU Rehabilitation Clinical and Research Programs in Asia Chi Ryang Chung—Korea	Chinese Workshop (Baxter Neurologic) Hsiao Ching Yen—Taiwan
09:30– 09:55	The Nurse-Driven EM program in ICU Experience from Taiwan Guan Jin Ho—Taiwan	Chinese Workshop (ARJO Sara-Plus) <i>Enhancing Neurocritical Care Mobility: Standardized Workflows and Hands-on Applications of Assistive Technology</i>
09:55– 10:20	How to set up an EM program in ICU Experience from Australia Thomas Rollinson—Australia	

Time	Lecture (401)	
10:20–10:50	COFFEE BREAK	YUN-CHEN TSAI—Taiwan
10:50 – 11:15	Best Practice for Early Rehabilitation: Experience from Singapore Balachandran Jayachandran—Singapore	Workshop Chinese (G-TES Stimulation) TBA
11:15–11:40	Best Practice for Early Rehabilitation: Experience from Japan Hajime Katsukawa—Japan	English Workshop Rehabilitation for the ECMO Patients Muhammed Aleef—Qatar
11:40–12:00	Panel Discussion for ICU Rehabilitation Dale Needham and all speakers	
12:00–12:15	Present APEM award (Poster and Oral) (group photo for experts on 2nd day)	
12:20–13:20	Lunch Symposium(SECC)	Lunch Symposium (402A) Technology and Clinical Value of BIA for Critically Ill Patient- Christine Ng
Time		Workshop 2 (402)
		English Workshop (Baxter Pulmonary) <i>From Bed to Better: Creative Early Mobilization in the ICU</i> Jing Hui Chung, Yi Shan Tsai—Taiwan
		English Workshop (Baxter Neurologic) Hsiao Ching Yen—Taiwan
13:30 - 16:50		English Workshop (ARJO Sara-Plus) <i>Enhancing Neurocritical Care Mobility: Standardized Workflows and Hands-on Applications of Assistive Technology</i> YUN-CHEN TSAI—Taiwan
		English Workshop (Abbott 肌肉評估) 楊瀚
		English Workshop (Philips 橫膈評估) Muscle assessment.Ultrasound checkup Ko Lung Lin—Taiwan

OCT.04,2026

Workshop 1 (NTU, College of Medicine 5F)

Topic 實作主題	Chinese Workshop (Baxter Pulmonary)	Chinese Workshop (Baxter Neurologic)	Chinese Workshop (ARJO Sara-Plus)	Chinese Workshop (G-TES Stimulation)	Workshop English Rehabilitation for the ECMO Patients
Speaker	Jing Hui Chung, Yi Shan Tsai	Hsiao Ching Yen	Yun-Chen Tsai	TBA	Muhammed Aleef
08:30–09:10	A	B	C	D	E

09:10-09:50	E	A	B	C	D
09:50-10:30	D	E	A	B	C
10:30-11:10	C	D	E	A	B
11:10-11:50	B	C	D	E	A

Workshop 2 (NTUH International Convention Center 4F 402)

Topic	English Workshop (Baxter Pulmonary)	English Workshop (Baxter Neurologic)	English Workshop (ARJO Sara-Plus)	English Workshop (Abbott 肌肉 評估)	English Workshop (Philips 橫膈評 估)
Speaker	<i>Jing Hui Chung, Yi Shan Tsai</i>	<i>Hsiao Ching Yen</i>	<i>Yun-Chen Tsai</i>	楊瀚	<i>Ko Lung Lin</i>
13:30-14:10	A	B	C	D	E
14:10-14:50	E	A	B	C	D
14:50-15:30	D	E	A	B	C
15:30-16:10	C	D	E	A	B
16:10-16:50	B	C	D	E	A

1. Why Early Mobilization is Important in Critically Ill Patients **Dale Needham—USA**

The presentation focuses on “Why” we should be focused on early rehabilitation in the intensive care unit (ICU) setting, including the following major points: (1) strong historical background and rationale, (2) improving short- and long-term outcomes after critical illness, (3) reducing muscle wasting and weakness in, and after, the ICU, (4) the need for a paradigm shift in ICU care, (5) providing clinical care that is consistent with recommendations from international clinical practice guidelines, and (6) a case study from the Johns Hopkins Hospital demonstrating the benefits of an early rehabilitation program to the ICU and hospital, with improved job satisfaction and reduced mechanical ventilation duration and length of stay.

2. Early Mobilization Timing & Safety: Creating an Integrated Team **Willy Chou**

Early mobilization is a key strategy for improving outcomes in critically ill patients, but its success depends on appropriate timing and safe implementation. This lecture reviews current evidence on patient selection, readiness assessment, and safety considerations. It also highlights the importance of an integrated multidisciplinary team—including physicians, nurses, physical therapists, and respiratory therapists—in planning and delivering individualized mobilization. Through collaborative practice and standardized protocols, early mobilization can be implemented safely to enhance functional recovery and optimize patient outcomes.

3. Cardio-Pulmonary Rehabilitation and Ventilator Weaning for ICU patients

Ko Lung Lin—TACVPR President Taiwan

Cardio-pulmonary rehabilitation plays a vital role in facilitating ventilator weaning and improving functional recovery in critically ill patients. This lecture reviews evidence-based rehabilitation strategies that optimize respiratory and cardiovascular function, enhance muscle strength, and improve exercise tolerance. It also discusses multidisciplinary approaches to assessing weaning readiness, implementing individualized rehabilitation programs, and preventing complications associated with prolonged mechanical ventilation. Early, coordinated rehabilitation can promote successful ventilator liberation, shorten ICU stays, and improve both short- and long-term patient outcomes.

4. Early Mobilisation - post valve replacement surgery: No modern equipment, no problems

Nguyen Ngoc Minh—Vietnam

Objective: The incidence of valve replacement surgery is increasing in Vietnam; however, postoperative burdens persist. Although evidence suggests that rehabilitation and enhanced recovery after surgery protocols significantly reduce hospital length of stay and improve functional outcomes, the adoption of such structured mobilization strategies remains inconsistent in resource-limited clinical environments due to staffing constraints. Thus, this study aims to assess the feasibility of early mobilization in patients undergoing heart valve replacement.

Results: Thirteen participants were recruited, and 12 were successfully assessed at discharge. On average, incentive spirometry values reached 80% of preoperative levels. Stair-climbing performance remained significantly lower than preoperative levels (MD: 9.7 ± 5.2 , $p = 0.03$). While the Barthel Index returned to preoperative levels, this finding warrants cautious interpretation due to the ceiling effect. The average length of hospital stay was 7.5 days, and patient satisfaction, as assessed by the revised Patient Satisfaction Questionnaire, was high.

Conclusion: The results of our study demonstrate that even in settings without high-tech equipment, structured physical activity protocols significantly facilitate recovery. These findings encourage the implementation of early mobilization within available settings.

5. Application of Body Composition Analysis and Bioelectrical Impedance Analysis in Critically Ill Patients **Zheng Yii Lee—Malaysia**

Outline

1. Importance of Body Composition Assessments in Critical Illness (focusing on skeletal muscle)

- Skeletal muscle mass is a key nutritional marker
- Association with clinical and functional outcomes
- Rapid muscle loss during critical illness
 - o Up to ~2% loss per day during the first week

2. Methods for Assessing Body Composition in Critically Ill Patients

- Anthropometry
 - o Examples: calf circumference, mid-arm circumference
 - o Advantages and limitations
 - Imaging Techniques
 - o CT and ultrasound

- o Advantages and limitations
 - Bioelectrical Impedance Analysis (BIA)
- o Advantages and limitations
- 3. Clinical Applications of BIA in Critical Care
 - Assessment of muscle mass
- o Fat-Free Mass Index (FFMI) (GLIM criteria)
- o Appendicular Skeletal Muscle Mass (ASM) (AWGS 2025)
 - Assessment of cell integrity
- o Phase Angle
 - Potential roles in nutritional assessment and monitoring

6. Sarcopenia and Nutrition therapy in the Critically Ill Patients

Yin Yi Han—Taiwan

Early rehabilitation combined with high-protein diet (early nutrition) in the ICU patients is a promising strategy to reduce intensive care unit-acquired weakness (ICU-AW), and improve the functional outcome of the patients. While high protein alone combining it with other trace elements has shown benefits in shortening the duration of mechanical ventilation, reducing ICU stay, and improving quality of life during the hospitalization. Muscle strength play a central role in the critical illness outcomes. This talk review ICU-acquired weakness and how nutritional assessment, adequate protein-energy delivery, specialized nutrients, and early rehabilitation support recovery.

7. Nutrition Combined with Rehabilitation, Debate in evidence? What we may do?

Dorji Harnod –Taiwan

Early rehabilitation combined with high-protein diet (early nutrition) in the ICU patients is a promising strategy to mitigate catabolism, reduce intensive care unit-acquired weakness (ICU-AW), and improve functional outcomes. While high protein alone has yielded mixed results, combining it with early exercise has shown benefits in shortening the duration of mechanical ventilation, reducing ICU stay, improving physical quality of life during the hospitalization.

Improved Functional Outcomes: Early rehabilitation combined with high-protein intake (defined as 1.5 g/kg/day or higher) in some studies can significantly improves physical quality of life and reduces mortality. In a randomized trial, the high-protein intake and early exercise group showed higher PCS (Physical Component Summary) scores at 3 and 6 months compared to standard care.

8. Avoid Delirium with Minimized Sedation, Tips from the PADIS Guideline in the ICU

Yu Chang Yeh—Taiwan

Delirium affects many critically ill patients and is associated with prolonged mechanical ventilation, longer ICU stay, long-term cognitive impairment, and increased mortality. Deep sedation is a major modifiable risk factor. The 2018 PADIS guideline recommends light sedation targets, regular assessment with validated tools such as RASS and CAM-ICU, and preference for non-benzodiazepine agents including propofol and dexmedetomidine. This lecture reviews practical strategies to minimize sedation, including analgesia-first sedation, daily sedation interruption or nurse-protocolized titration, and early mobilization within the ABCDEF bundle. Attendees will learn how to

integrate these evidence-based tips into daily ICU practice to prevent delirium and improve outcomes

9. Neurorehabilitation Approach for Disorder of Consciousness in Critical Care Patients

Leong Be Kim—Malaysia

Neurological complications, particularly disorders of consciousness (DoC) can significantly impair long-term function and quality of life. This presentation reviews the clinical spectrum, assessment, diagnosis, monitoring, and guideline-based management of prolonged DoC. Although meaningful recovery may occur beyond one month post-injury, many patients require long-term supportive care. Common complications include agitation, hypertonia, sleep disturbances, urinary tract infections, and pain. Amantadine may accelerate early recovery in traumatic DoC, while early, coordinated neurorehabilitation initiated in the ICU can improve recovery trajectories and optimize neurological outcomes

10. Rehabilitation with Delirious TBI patient. Design the Save Mobilization Program

Hsiao Ching Yen—Taiwan

Take-home Messages

Participants will learn how to:

1. Identify barriers to mobilization in delirious TBI patients.
2. Apply safety screening and risk stratification before mobilization.
3. Select appropriate mobility levels based on patient status.
4. Implement a structured and reproducible mobilization program in neurocritical care settings.

1.. 從急重症到心肺功能重建：向心與離心腳踏車運動與心輸出量監測 趙克耘副主任

本演講以急重症後心肺功能重建為核心，本演講搭配腳踏車現場示範向心與離心運動差異，並展示心率控制與同步心輸出量監測，說明如何依即時生理反應調整運動強度，建立安全且個人化的心肺復健模式

2. Latest Evidence for ICU Rehabilitation and Future Directions

Dale Needham—USA

The presentation focuses on the “latest updates and future directions” for ICU rehabilitation, including the following major points: (1) strong evidence for safety, (2) review of clinical practice guideline recommendations, (3) findings from landmark clinical trials, (4) emerging areas of research and relevant early-stage clinical trials, and (5) future directions for the field.

3. Creating ICU Rehabilitation Clinical and Research Programs in Asia

Chi Ryang Chung—Korea

Building a sustainable ICU rehabilitation program is as much an organizational challenge as a clinical one. Many Asian centers recognize the value of early mobilization yet struggle to move from isolated efforts by motivated individuals to a structured, institution-wide program. This presentation outlines a practical framework for creating both the clinical service and the research capacity needed to sustain ICU rehabilitation over the long term.

On the clinical side, the talk addresses the essential building blocks: securing institutional and leadership support, defining the multidisciplinary team and each member's role, establishing standardized screening and safety criteria, and integrating mobilization into daily ICU workflow

through protocols and automated order systems. Particular attention is given to overcoming common start-up barriers in Asian settings—limited dedicated therapists, sedation culture, and competing ICU priorities—and to staged implementation that begins small and expands as the team builds confidence and data.

4. The Nurse-Driven EM program in ICU Experience from Taiwan **Guan Jin Ho—Taiwan**

Rehabilitation, a caregiver's duty, permeates all care details. It starts with psychological security, moves to body relaxation and progressive training, where even micro-movements optimize tissue perfusion. This practice is encapsulated in "Eightion"—the VIPNSRCC framework (Ventilation, Immune/inflammation, Perfusion, Nutrition, Synchronization, Rehabilitation, Communication, Complication), unifying eight vital dimensions into one holistic recovery (8=1).

5. How to set up an EM program in ICU Experience from Australia **Thomas Rollinson—Australia**

Early mobilisation in the intensive care unit (ICU) is recognised as a key strategy for improving long-term, patient-centred outcomes, including physical function, quality of life, and reduced healthcare utilisation. However, implementation remains inconsistent due to clinical, organisational, and cultural barriers. This presentation outlines practical approaches to establishing an early mobilisation program in ICU, drawing on implementation experience within an Australian healthcare setting.

The rationale for early mobilisation will be explored, including its role in reversing the effects of immobility and potential for mitigating ICU-acquired weakness. Key challenges to implementation such as sedation practices, safety risks, staffing constraints, and variability in multidisciplinary engagement, will be discussed alongside identified enablers, including leadership support, clear protocols, and team-based approaches.

6. Best Practice for Early Rehabilitation: Experience from Singapore **Balachandran Jayachandran—Singapore**

The session will showcase practical examples of interdisciplinary collaboration between physiotherapists, nurses, physicians, and allied health professionals in delivering safe and effective rehabilitation. Lessons learned from quality improvement initiatives, including nurse-led mobilisation programmes and ICU rehabilitation projects, will be discussed, together with their impact on patient outcomes and healthcare delivery.

Participants will gain insights into best practices, implementation challenges, and sustainable approaches for embedding early rehabilitation into routine clinical care. The presentation aims to provide healthcare

7. Best Practice for Early Rehabilitation: Experience from Japan **Hajime Katsukawa—Japan**

In recent years, evidence regarding early mobilization has become increasingly clear, and early mobilization has been progressing worldwide. Common criteria applicable to many patients, such as early mobilization protocols, have been proposed. However, issues related to

individualization—such as when mobilization should be started, for which diseases it should be applied, and what duration and intensity of mobilization should be provided—remain unclear.

To address these issues, it is important to accumulate evidence through multicenter studies. In Japan, a multicenter research framework aimed at building evidence on early mobilization was launched in 2016. To date, five studies have been conducted, including international studies: the EM-Safety Study, EM-PICS Study, ILOSS Study, LIBERATION Study, and IPAMICS Study. These studies have resulted in the publication of 17 international papers.

In this lecture, the results of these international studies will be presented, along with the barriers encountered when conducting multi-center research in Japan and the strategies used to overcome them. I hope that this information will help facilitate the implementation of multi-center research in countries across the Asia-Pacific region.

8. Technology and Clinical Value of BIA for Critically Ill Patient- *Christine Ng*

Clinical Value & Expected Benefits in ICU Practice

- Enables objective, repeatable bedside assessment of body composition changes
- Facilitates early detection of muscle wasting and fluid imbalance
- Supports individualized nutrition and fluid management strategies
- Enhances longitudinal monitoring of critically ill patients
- Provides additional quantitative support to complement clinical judgment

站 1 From Bed to Better: Creative Early Mobilization in the ICU

重症患者在 ICU 常見插管並需要使用呼吸器，因此常處在平躺臥床不活動的狀態，由於對血流動力學和肺部氣體交換有許多不利影響，導致相關併發症產生，例如身體功能障礙、認知功能障礙和神經肌肉無力。在重症患者擺位技巧實務中，透過不同姿勢的擺位可放鬆呼吸肌、找到最有利於橫膈呼吸的姿勢，減緩對喘的敏感性，增加患者換氣灌流，來達到更有效益的生理功能。

站 2. Neurologic

Participants will learn how to:

1. Identify barriers to mobilization in delirious TBI patients.
2. Apply safety screening and risk stratification before mobilization.
3. Select appropriate mobility levels based on patient status.
4. Implement a structured and reproducible mobilization program in neurocritical care settings.

站 3. Enhancing Neurocritical Care Mobility: Standardized Workflows and Hands-on Applications of Assistive Technology

Attendees will learn how to:

- **Overcome Clinical Barriers:** Use assistive devices to safely mobilize neurocritical patients who have multiple lines, severe weakness, or impaired consciousness.
- **Execute Standardized Workflows:** Master the practical operations of Sara Plus and Sara Stedy through direct hands-on experience.
- **Apply Evidence-Based Strategies:** Implement a reproducible framework that translates clinical evidence (TBI/aSAH mobilization benefits) into daily practice.

站 4. 肌肉評估

電刺激預防肌肉萎縮之臨床實務操作, 電刺激能透過電流刺激運動神經, 誘發肌肉收縮, 常見於醫療復健, 用於緩解肌肉疼痛、神經受損後的神經肌肉再訓練、防止肌肉萎縮及維持關節活動度。簡介實務操作上的徵結點以達到有效之復健

站 5. *Muscle assessment. Ultrasound checkup*

This hands-on workshop introduces ultrasound-based muscle assessment in critically ill patients. Participants will learn practical scanning techniques, standardized measurement methods, and interpretation of muscle quality and quantity. The session emphasizes the clinical application of ultrasound for monitoring muscle loss, guiding rehabilitation, and supporting individualized patient care in the ICU.