

Advanced Heart Failure Symposium

時間：114 年 7 月 27 日(星期日) 08:45-12:00

地點：張榮發基金會國際會議中心 8F 803 會議室 (台北市中正區中山南路 11 號)

Time	Topics	Speaker	Chair
08:45-08:50 (5")	Welcome Introduction and Keynote	李貽恒	
08:50-09:10 (20")	Identifying the Patient with Advanced Heart Failure: When to Refer?	王玟樺	李貽恒
09:10-09:30 (20")	Strategies for Managing the Cardiogenic Shock Patients	柯宗佑	蔡建松
09:30-09:50 (20")	Temporary VAD for Cardiogenic Shock: What to do Now? What to do Next?	許博順	
09:50-10:10 (20")	Patient Selection for LVAD	阮俊能	陳益祥
10:10-10:30 (20")	Long Term Care for LVAD	譚大中	
10:30-10:50 (20")	Current Indication and Status for Heart Transplantation	劉國聖	林宗憲
10:50-11:10 (20")	Advances in Immunosuppression and Rejection Management	傅薰儀	
11:10-11:30 (20")	End-of-Life Care and Hospice in Advanced Heart Failure	陳彥元	謝宜璋
11:30-11:55 (25")	Panel Discussion	All	
11:55-12:00 (5")	Closing Remarks	謝宜璋	

Strategies for Managing the Cardiogenic Shock (CS) Patients

柯宗佑 醫師

摘要

Shock Team 啟動

組成多專科 Shock Team：重症、心臟科、心衰專科、介入心臟科、心臟外科等。使用標準化流程提升病人分流、治療與轉院效率。多中心資料顯示：Shock Team 能提升使用進階 hemodynamic 監測與 tMCS 的比率，降低 ICU 死亡率。

血流動力學監測

建議使用肺動脈導管（PAC）進行侵入性監測：

評估左/右/雙心室負荷型態與 cardiac index。

PAPi、CVP/PCWP 等指標協助風險分層與治療調整。

藥物治療策略

根據血壓與灌流狀態選擇最適合的 vasoactive agents：

目前沒有明確第一線用藥建議，但 Inopressors（如 norepinephrine）為首選。

避免高劑量或長期使用導致心肌耗損。

使用最低有效劑量並搭配 diuretics 解決鬱血型 CS。

tMCS（暫時性機械循環支持）

裝置選擇須依據血流動力學需求與併發症風險評估。

DanGer Shock trial 顯示 microaxial pump 可改善 STEMI-CS 預後。

強調慎選適應症，避免濫用。

結語

以個人化、動態調整與跨科團隊合作為管理核心，Recognize/Rescue → Optimize → Stabilize → De-Escalation/Exit」四階段照護模式。

Patient Selection for LVAD

阮俊能 醫師

Selecting the right patients for left ventricular assist device (LVAD), right ventricular assist device (RVAD), or biventricular assist device (BiVAD) implantation is essential for successful advanced heart failure (HF) management. This process balances the patient's need for mechanical circulatory support with procedural risks.

LVAD therapy is indicated for patients with advanced heart failure with reduced ejection fraction (AdvHFrEF) who do not respond to guideline-directed medical therapy (GDMT). Major indications include Bridge to Transplant (BTT), Bridge to Candidacy (BTC), and Destination Therapy (DT). Key selection criteria are NYHA Class IIIB–IV symptoms, LVEF <25%, inotrope dependence, and evidence of hemodynamic compromise.

Early referral is critical, as delays can lead to irreversible multiorgan dysfunction. Clinicians must identify an optimal timing for implantation, balancing potential benefits and risks. Important clinical indicators include frequent HF hospitalizations, GDMT intolerance due to hypotension or renal dysfunction, rising diuretic needs, persistent hyponatremia, elevated NT-proBNP levels, and echocardiographic findings like a left ventricular end-diastolic diameter ≥ 80 mm.

While invasive hemodynamic measures can be helpful, they are sometimes unnecessary if clinical and non-invasive assessments provide sufficient insights. The INTERMACS classification helps with risk stratification, with profiles 2–4 typically benefiting most from devices. In contrast, patients in profiles 5 and above usually continue with medical therapy unless they show clinical decline.

A thorough evaluation of right ventricular function is also necessary before LVAD implantation to determine if RVAD or BiVAD support is required. Predictive tools using echocardiography and other indices can identify patients at risk for post-LVAD right ventricular failure.

In summary, appropriate candidate selection for LVAD, RVAD, or BiVAD involves assessing disease severity, comorbidities, and hemodynamic status. An individualized evaluation by heart failure teams ensures optimal patient-device match, enhancing survival and quality of life.

Long term care for LVAD 左心室輔助器植入後的長期照護

譔大中
台北濟醫院心臟外科

隨著心衰竭治療的進步，左心室輔助器（LVAD）在末期心衰竭病人的角色日益重要，無論是作為橋接至移植（bridge to transplantation）或目的性治療（destination therapy），應用愈發普及。「心伴三號」（HeartMate 3）為目前使用最廣泛的連續流機型，其經臨床證實在血栓形成率與泵浦故障方面具明顯優勢。

左心室輔助器植入後病人的長期照護重點，涵蓋以下幾大核心面向：

- 左心室輔助器植入後病人的心衰用藥調整策略
- 抗凝治療的優化與調整策略
- 感染預防與傷口管理（特別是導線出口處）
- 裝置功能監測與遠端追蹤應用
- 合併症管理：胃腸道出血、右心衰竭、泵內血栓等
- 心理社會支持與病患依從性促進
- 跨團隊整合照護的角色：內科、外科、感染科、復健及護理

同時也將簡要分享實際個案，討論心臟內外科醫師在門診與住院照護中應注意的細節。

關鍵詞：左心室輔助器、心伴三號、長期照護、抗凝治療、裝置感染、心衰竭

Current Indication and Status for Heart Transplantation

劉國聖 醫師

Abstract

Heart transplant is still the gold standard treatment for end-stage heart failure, despite of the advancement of mechanical circulatory support. In this presentation, I will give an updated review on the current indications, results, and gaps in heart transplantation.

Advances in Immunosuppression and Rejection Management

傅薰儀醫師

Heart transplantation is a critical treatment for end-stage heart disease, but it carries the inherent risk of organ rejection, necessitating a delicate balance between preventing rejection and minimizing immunosuppression-related complications. The latest ISHLT Guidelines published in 2023 provides updated recommendations on immunosuppressive strategies, rejection surveillance, and the management of acute and chronic rejection in adult heart transplant recipients.

Recent innovations in immunosuppressant strategies and rejection management in heart transplantation have significantly advanced the field, offering improved outcomes for patients undergoing this complex procedure. The evolution of these strategies has been driven by a better understanding of the mechanisms behind both acute and chronic rejection, leading to more tailored and less invasive management protocols that aim to balance efficacy with minimal side effects.

Notable advancements include the introduction of personalized medicine approaches that leverage genetic and biomarker data to inform immunosuppressive regimens tailored to individual patient profiles. Innovative diagnostic techniques, such as cell-free DNA analysis and advanced imaging methods, have emerged to facilitate non-invasive monitoring of graft status, allowing for timely interventions that can significantly enhance patient outcomes.

Additionally, the integration of new classes of immunosuppressive agents, such as proliferation signal inhibitors, reflects an ongoing shift towards more sophisticated treatment modalities that address the specific needs of heart transplant recipients.

However, the field faces several challenges, including patient adherence to complex medication regimens, the risk of infections associated with immunosuppression, and cardiovascular toxicities that can arise from long-term treatment. These factors complicate the management of immunosuppressive therapies, highlighting the need for continued research to develop safer and more effective strategies that minimize risks while maximizing graft survival.

As the landscape of heart transplantation continues to evolve, the focuses on personalized immunosuppression, improved diagnostic tools for rejection surveillance, and careful management of immunosuppression-related complications remain paramount to improving the overall quality of life for transplant recipients.

個人資料表

一、基本資料

中文姓名	王 玟 樺	英文姓名	Wang, Wen-hwa/Wang, Wen-Hua		
			(Last Name)	(First Name)	(Middle Name)

二、現職及與專長相關之經歷 指與研究相關之專任職務，請依任職之時間先後順序由最近

者往前追溯。

服務機關	服務部門／系所	職 稱	起訖年月
現職：高雄榮民總醫院	一般內科	主治醫師	2017/08－2018/08
	心臟內科	主治醫師	2014/01－迄今
	健康管理中心	主治醫師	2013/09－迄今
經歷：高雄榮民總醫院	心臟內科	主治醫師	2018/09－迄今
	健康管理中心	主治醫師	2018/09－迄今
	重症醫學科	主治醫師	2013/06－2017/07
	健康管理中心	總 醫 師	2012/12－2013/08
	心臟內科	總 醫 師	2010/07－2013/07
	重症醫學科	總 醫 師	2010/07－2013/06
	內科	住院醫師	2006/10－2010/06

三、專長 請自行填寫與研究方向有關之專長學門。

1.心臟衰竭	2.心臟超音波	3.心臟腫瘤	4. 心肌病變
5. 高血脂預防醫學			

CURRICULUM VITAE

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AFFILIATION

成大醫學院附設醫院心臟血管外科 教授兼主治醫師

RESEARCH INTERESTS

心臟衰竭、心臟移植、體外維生系統、肺高壓、動靜脈瘻管、二尖瓣修補手術、先天性心臟病手術等等



ACADEMIC APPOINTMENT

02/2024-Present 成大醫學院醫學系 系主任

11/2018-Present 成大醫學院附設醫院外科部心臟血管外科 主任

11/2024-Present 台灣胸腔暨心臟血管外科學會常務理事

PUBLICATIONS (節錄)(*correspondence)

1. Pang YL, Fang SY, Huang CC, Lin MW, **Roan JN**, Tsai KJ, Lam CF. Transplantation of viable allogeneic mitochondria protects kidney function in a mouse model of haemorrhagic shock and rhabdomyolysis-induced acute renal injury. *Shock*. 2025 Mar 21. doi: 10.1097/SHK.0000000000002579.
2. De Cai Y, Wu CL, Chen YP, Hu YN, Tsai MT, **Roan JN***. Acute T cell leukemia in a stable recipient of a heart transplantation. *Journal of Heart and Lung Transplantation* 2024 Apr;43(4):686-687.
3. Lan-Pin Kuo, Yi-Chen Wang, Po-Lin Chen, MD, Wei-Hung Lin, Wei-Ming Wang, Chao-Jung Shih, Pei-Ni Yang, Yu-Ning Hu, Chih-Hsin Hsu, **Jun-Neng Roan***, Meng-Ta Tsai*. Prophylactic antibiotic treatment for preventing nosocomial infection in circulatory arrest patients resuscitated with extracorporeal membrane oxygenation. *JTCVS open* 2023 Dec; 16: 582–601
4. Mendiola Pla M, Chiang Y, Roki A, Wang C, Lee FH, Smith MF, Gross RT, **Roan JN**, Bishawi M, Evans A, Gault LE, Ho S, Glass C, Schroder JN, Lezberg P, Milano CA, Bowles DE, Ex vivo Gene Delivery to Porcine Cardiac Allografts using a Myocardial-enhanced Adeno-associated Viral Vector. *Human Gene Therapy* 2023; 34(7-8): 303–313.

謹大中

學經歷：

- 1988-09~1995-06 國立台灣大學醫學系(MD)
- 1997-07~2002-06 國立台灣大學附設台大醫院外科部住院醫師及總住院醫師
- 2008-10~2011-05 國立政治大學經營管理碩士，非營利組織管理組(EMBA-NPO)
- 2019-03~2019-04 加拿大英屬哥倫比亞大學聖保羅醫院“經導管主動脈瓣膜置換手術(TAVR)”專題進修

工作簡歷：

- 1995-10~1997-06 中華民國陸軍澎湖防衛司令部少尉軍醫官
- 1997-07~2002-06 國立台灣大學附設台大醫院外科部住院醫師及總住院醫師
- 2002-07~2007-06 佛教慈濟醫療財團法人大林慈濟醫院心臟外科主治醫師
- 2005-08~2007-06 佛教慈濟醫療財團法人大林慈濟醫院心臟外科主任
- 2007-07~2009-07 佛教慈濟醫療財團法人台北慈濟醫院外科加護病房主任
- 2010-08~2024-12 佛教慈濟醫療財團法人台北慈濟醫院開刀房主任

現職：

- 2007-07~ 佛教慈濟醫療財團法人台北慈濟醫院心臟外科主治醫師
- 2011-07~ 佛教慈濟醫療財團法人台北慈濟醫院心臟外科主任

學會及認證：

- 台灣胸腔及心臟血管外科醫學會心臟外科專科醫師及專科指導醫師
- 中華民國心臟學會心臟外科專科醫師及專科指導醫師
- 台灣血管外科醫學會專科醫師及專科指導醫師
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- 行政院衛生福利部核定經導管主動脈瓣膜置換手術施行醫師
- 台灣胸腔及心臟血管外科醫學會機械手臂輔助心臟外科手術操作醫師

專業興趣：

- 經導管心臟瓣膜手術、全內視鏡心臟瓣膜手術、心衰竭治療及手術、心室輔助器手術、心臟移植、傳統心臟手術

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1993-2000 Medical College of Chang Gung University, Taiwan

2009-2014 Graduate Institute of Mechanical Engineering, Chang Gung University, Taiwan

Employment Record:

Sep 2000 – Feb 2002 Military Service as Medical Doctor

July 2002 – June 2005 R1-R3, Department of Surgery, Linkou Chang Gung Memorial Hospital (CGMH)

July 2005 – June 2007 Fellow, Division of Thoracic & Cardiovascular Surgery, Linkou CGMH

July 2007 – June 2009 Attending Staff, Div. of Thoracic & Cardiovascular Surgery, Linkou CGMH

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April – May 2017 Visiting Surgeon, Cardiac Surgery, New York-Presbyterian/Columbia University Medical Center

July 2017 – now Chief, Section of Cardiac Surgery, Linkou CGMH

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May 2011 Assistant Professor, Div. of Thoracic & Cardiovascular Surgery, CGMH

July 2017 Associate Professor, Div. of Thoracic & Cardiovascular Surgery, CGMH

Board Certifications:

1. Doctor License of Republic of China No.: 032540
2. The Surgical Association of the Republic of China, No.: 005426
3. Taiwan Society of Cardiology, No.: 042
4. Taiwan Association of Thoracic & Cardiovascular Surgery, No.: 320
5. Taiwan Society of Critical Care Medicine, No.: 01424
6. Taiwan Society for Vascular Surgery, No.: S00455



Hsun Yi Fu

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Organization	National Taiwan University Hospital Hsin-Chu Branch
Major Field	Cardiovascular surgery
Education	Doctor of Medicine
Professional Experience	
Honors & Awards	
Publications	Outcome of urgent desensitization in sensitized heart transplant recipients. Fu HY, Wang YC, Tsao CI, Yu SH, Chen YS, Chou HW, Chi NH, Wang CH, Hsu RB, Huang SC, Yu HY, Chou NK. J Formos Med Assoc. 2021 Jul 30:S0929-6646(21)00345-4.
Short Bio (in 300 words)	<p>2006 – 2012 National Taiwan University College of Medicine</p> <p>2012 – 2013 Post Graduate Year, National Taiwan University Hospital</p> <p>2013 – 2014 Department of Anesthesia, National Taiwan University Hospital</p> <p>2014 – 2020 Department of Cardiovascular Surgery, Department of Surgery, National Taiwan University Hospital</p>