

# 急診醫學科專科訓練醫師核心課程

## (Subject Curricula of Emergency Medicine)

### 目 錄

<u>項 目</u>	<u>頁</u>
管理與行政 .....	1
麻醉學 .....	2
心臟血管學 .....	4
重症照護及復甦術 .....	8
皮膚科急症 .....	11
緊急醫療救護系統 .....	12
環境醫學 .....	14
醫學倫理與職業道德 .....	17
一般內科 .....	19
一般外科 .....	23
老人醫學 .....	25
神經科 .....	27
婦產科 .....	29
眼科 .....	32
骨科 .....	34
耳鼻喉科 .....	36
小兒科 .....	38
精神科 .....	44
研究 .....	46
毒物學 .....	48
創傷 .....	50
泌尿科 .....	54
傷口處理 .....	56

# ADMINISTRATION 管理與行政

## Goals:學習目標

1. Learn basic principles of leadership and administration.  
學習領導和管理的基本原理。
2. Develop an understanding of quality improvement and risk management programs and their application to the operation of an emergency department.  
了解品質提昇和危機處理計劃及其在急診運作上的應用
3. Develop an understanding of the function of emergency medicine within the institution and its relationship with other departments.  
了解院內急診部的功能及其與其他部門的關係。
4. Develop an understanding of the function of accrediting agencies and their relationship with emergency medicine.  
了解各認證與評鑑單位的功能及其與急診醫學的關係。

## Objectives:學習內容

1. Discuss the following concepts as they relate to Emergency Medicine: credentialing, career development, recruitment, budgeting, health care financing, managed care, personnel management, public relations, marketing, hospital administration, practice management, contracts, work schedules.  
討論下列幾項與急診醫學有關的概念：  
專科證照、生涯規劃、人員招募、預算管控、醫療財務、管理式醫療、人員管理、公共關係、市場分析、醫院管理、操作管理、合約及工作計劃表。
2. Discuss cost containment as relates to Emergency Medicine.  
討論與急診部門有關的成本管控。
3. Discuss JCAHO requirements relating to the Emergency Department with emphasis on staffing, equipment and supplies, facility, quality assurance and patient transfer regulations.  
討論醫院評鑑對急診之要求，特別強調人員、設備、器材供應、品管及病患轉診之管理。
4. Discuss hospital and Emergency Department administrative organization.  
討論醫院與急診部門的行政架構。

# ANESTHESIA 麻醉學

## Goals:學習目標

1. Develop airway management skills  
發展呼吸道處理技術。
2. Develop familiarity with pharmacologic agents used in anesthesia  
熟悉麻醉用藥。
3. Learn standard monitoring techniques  
學習標準監視技術。
4. Learn relevant pre-operative historical and physical exam considerations  
學習手術前相關的病史詢問與理學評估。
5. Learn principles of pain management.  
學習疼痛處理的原則。

## Objectives:學習內容

1. Demonstrate correct use of the bag-valve-mask device.  
能正確使用袋-瓣-罩呼吸裝置。
2. Demonstrate knowledge of the anatomy of the upper airway.  
熟悉上呼吸道解剖學。
3. Demonstrate basic familiarity with nasotracheal and endotracheal intubation as well as the indications and complications  
熟悉經鼻與經口氣管內管置放步驟及其適應症與併發症。
4. State the dosages, indications and contraindications for inhalation anesthetic agents, intravenous analgesic and anesthetics, and neuromuscular blocking agents.  
明瞭吸入型麻藥、靜脈止痛麻醉藥及神經肌肉阻斷劑之使用劑量、時機與禁忌。
5. Demonstrate ability to use standard monitoring techniques.  
能夠正確使用標準的監視技術。
6. Demonstrate ability to manage a patient on a ventilator.  
能正確地處理使用呼吸器的病患。
7. Demonstrate knowledge of the principles of regional anesthesia and successfully perform metacarpal, digital, radial, median, ulnar, tibial and sural nerve blocks.  
明瞭局部麻醉的原則並成功地完成掌、指(趾)、橈骨、正中、尺骨、脛骨、腓骨等神經阻斷。
8. Demonstrate ability to administer local anesthetics and be familiar with agents, dosing, side effects, and techniques to monitor pain.  
能正確進行局部麻醉，並熟悉藥物、劑量、副作用及疼痛評估。
9. Recognize and manage an obstructed airway.  
能夠確認及處理阻塞的呼吸道。

10. Perform conscious and deep sedation under faculty supervision.  
在上級醫師指導下，執行清醒與深度鎮靜麻醉。
11. Perform facial nerve blocks to include supra orbital, infra orbital, mental and auricular nerves.  
執行面部神經阻斷包括眶上、眶下、額及耳神經。
12. Demonstrate appropriate judgment regarding the need for airway intervention.  
明瞭呼吸道介入性處置的適當時機。
13. Demonstrate skill in the use of anesthetics and neuromuscular blocking agents including conscious sedation and rapid sequence intubation.  
能夠使用麻醉劑與神經肌肉阻斷劑包括清醒鎮靜術與快速插管(RSI)。
14. Demonstrate ability to obtain a surgical airway.  
能夠建立外科氣道。
15. Demonstrate ability to perform dental block.  
能夠施行牙神經阻斷術。

## CARDIOVASCULAR 心臟血管學

### Goals:學習目標

1. Demonstrate the ability to stabilize patients who present in cardiopulmonary arrest.  
展現出對心肺停止病患的急救能力。
2. Develop skills in the evaluation of patients who present with chest pain.  
發展出評估胸痛病患的技巧。
3. Demonstrate the ability to evaluate, stabilize, treat, and arrange for appropriate disposition of patients with cardiac disease processes.  
展現出評估、穩定、治療及後續處置心臟疾病的能力。
4. Demonstrate the ability to develop a differential diagnosis for patients presenting with cardiac symptomatology (chest pain, shortness of breath, weakness, palpitations), etc.  
展現出對於心臟症狀病患(如胸痛、呼吸急促、無力、心悸等)有鑑別診斷的能力。
5. Demonstrate skill in the interpretation of diagnostic modalities (ECG, chest x-ray and cardiac ultrasonography).  
展現出對各檢查結果(如心電圖、胸部 X 光、心臟超音波)的判讀技巧。
6. Develop a familiarity with cardiac pharmacologic agents.  
熟悉心臟急救用藥。
7. Demonstrate skill at cardiac related procedures: venous line and CVP pressure monitoring, pericardiocentesis, defibrillation and cardioversion, Swan ganz catheterization, and ultrasonography.  
熟悉與心臟急救相關的技巧：靜脈導管、中央靜脈壓監測、心包膜液抽取術、心臟去顫術、Swan ganz 導管置放術及超音波評估。
8. Demonstrate the ability to diagnose, stabilize, and apply thrombolytic therapy to patients presenting with acute early myocardial infarction.  
展現出對於早期急性心肌梗塞病患的診斷、穩定及使用血栓溶解劑的能力。

### Objectives:學習內容

1. Demonstrate the ability to perform an appropriate history and physical examination on the patient presenting with cardiac symptomatology.  
對於有心臟症狀的病患，執行適當的病史詢問與理學檢查。
2. List items elicited from the history of patient with chest pain to suggest a risk for cardiac etiology.  
從胸痛病患的病史中，列舉出心臟疾病的危險因子。
3. Discuss limitations in differentiation of cardiac chest pain from non-cardiac pain in patients with risk factors.  
對於具危險因子的病患，討論在鑑別心因性胸痛與非心因性胸痛時的限制。

4. Describe the pathophysiology of cardiac ischemia, acute angina chest pain, and acute myocardial infarction.  
敘述心肌缺氧、心絞痛、心肌梗塞的生理病理機轉。
5. Describe the typical electrocardiograph findings of patients with myocardial ischemia, subendocardial infarction and myocardial and transmural infarction.  
描述心肌缺氧、心內膜下梗塞、心肌層及全壁層心肌梗塞的典型心電圖變化。
6. Discuss differential diagnosis of atypical chest pain.  
討論非典型胸痛的鑑別診斷。
7. Discuss atypical presentations for acute cardiac ischemia and myocardial infarction.  
討論急性心肌缺氧與心肌梗塞的非典型表徵。
8. Discuss the sensitivity and specificity of ancillary studies for chest pain presentations including EKG, chest x-ray, cardiac enzymes, and arterial blood gases.  
討論各種胸痛病患檢查項目的敏感度與特異性，包括心電圖、胸部 X 光、心臟酵素及動脈血氧分析。
9. Differentiate between stable and unstable angina and outline the initial treatment of patients with unstable angina including the use of nitrates, beta blockers, calcium channel blockers, etc.  
能分辨穩定與不穩定心絞痛病患及指出不穩定心絞痛病患的初步處理，包括使用硝化甘油、乙型阻斷劑與鈣離子阻斷劑等等。
10. Discuss the concept of "silent" myocardial infarction and ischemia.  
探討無痛心肌梗塞及缺氧之概念。
11. Differentiate between transmural versus subendocardial infarction.  
分辨全壁層心肌與心內膜下心肌梗塞。
12. Discuss the significance of acute complete atrio-ventricular block with inferior myocardial infarction versus anterior myocardial infarction.  
討論有關下壁與前壁心肌梗塞造成急性完全房室阻斷之差異性。
13. Demonstrate knowledge of AHA recommendation for the treatment of acute ventricular fibrillation, ventricular tachycardia, asystole, pulseless electrical activity, atrial flutter and fibrillation, junctional ectopy, pre-excitation, supraventricular tachycardia, and bradycardia, sick-sinus syndrome, atrial ventricular blocks (first degree, second degree and third degree) and bundle branch blocks.  
敘述美國心臟醫學會有關心室纖維顫動(VF)、心室心搏過速(VT)、心臟停止(Asystole)、無脈搏電氣活動(PEA)、心房撲動(AF)、心房纖維顫動(Af)、房室異跳、心室上心搏過速、心搏過緩(Bradycardia)、病竇症候群(sick-sinus syndrome) 、 $1^0, 2^0, 3^0$ 房室阻斷及支束傳導阻滯。
14. Describe the clinical findings of cardiogenic shock and outline therapy for cardiogenic shock.  
描述心因性休克的臨床表徵及其治療。
15. Differentiate cardiogenic shock from other etiologies for shock.  
鑑別診斷心因性休克與其他原因引起之休克。
16. Describe the clinical presentation for pericardial disease and outline the appropriate initial therapy and management for pericardial disease.  
描述心包膜疾病的臨床表徵並指出其適切的初步處理與治療。

17. Describe the presentations for myocardial infarction and their association with vessel involvement.  
描述心肌梗塞的表徵及其相關血管阻塞狀況。
18. List the indications, contraindications and complications of thrombolytic therapy for acute myocardial infarction.  
列出急性心肌梗塞使用血栓溶解劑之適應症、禁忌症與併發症。
19. Describe the clinical presentation, etiologies, pathophysiology of, and current therapy for acute congestive heart failure.  
描述急性心肌衰竭的臨床表徵、病因生理病理機轉及目前的治療方法。
20. Describe the valvular anatomy of the heart and list etiologies for valvular heart disease.  
描述心瓣膜的解剖功能，並列舉出有關瓣膜性心臟病的病因。
21. Describe the clinical findings of a mitral valve prolapse, valvular aortic stenosis, aortic regurgitation, tricuspid stenosis, tricuspid regurgitation, and pulmonary stenosis, and discuss management of each of these valvular abnormalities.  
描述二尖瓣膜脫垂、主動脈瓣、三尖瓣及肺動脈瓣狹窄、主動脈瓣及三尖瓣閉鎖不全的臨床表徵，並討論相關瓣膜疾病的處理。
22. List complications of prosthetic cardiac valves and appropriate emergency department management.  
列舉出人工心臟瓣膜的併發症及適切的急診處置。
23. Differentiate between congestive cardiomyopathy, hypertrophic cardiomyopathy and restrictive cardiomyopathy and discuss therapy for each.  
區分鬱血性心肌病變、肥大性心肌病變及局限性心肌病變之間的差異並討論其治療。
24. Define myocarditis and describe the EKG findings and acute management of myocarditis.  
界定心肌炎的定義及其心電圖特徵，並了解如何緊急處置。
25. Discuss the pathophysiology of acute pulmonary embolism and the predisposing factors for pulmonary embolism.  
討論急性肺栓塞的生理病理機轉，並分析其致病因子。
26. Discuss the sensitivity and specificity of the various tests used to diagnosis pulmonary embolism including arterial blood gases, EKG, chest x-ray, etc.  
討論診斷急性肺栓塞的檢測工具(如動脈血氧分析、心電圖、CXR 等)的敏感度與特異性。
27. Discuss the sensitivity and specificity of ventilation perfusion scan in acute pulmonary embolism.  
討論核醫肺掃描在急性肺栓塞的敏感度與特異性。
28. Outline treatment for acute pulmonary embolism.  
列舉急性肺栓塞之治療方式。
29. Differentiate between acute hypertensive emergencies, hypertensive urgency, and uncomplicated hypertension.  
鑑別急性高血壓危症(emergencies)、高血壓急症(urgency)及無併發症高血壓之間的差異。
30. Discuss the indications for treatment of hypertension in the emergency department.  
討論在急診治療的高血壓適應症。
31. Describe the syndrome of hypertensive encephalopathy.  
描述高血壓腦性腦病變的症候群。

32. Outline the treatment for acute hypertensive emergency and differentiate treatment in the setting of thoracic aortic dissection.  
列舉高血壓危症的治療方式，並分辨出胸腔主動脈剝離情況下之治療有何不同。
33. Differentiate between primary agents for hypertensive emergency to include their advantages and disadvantages.  
比較高血壓危症第一線用藥的優缺點。
34. Describe the clinical presentation of acute mesenteric ischemia and discuss the inherent difficulties in the diagnosis as well as the emergency department management.  
探討急性腸繫膜缺血之臨床表徵，並探討此病先天上診斷以及在急診處置上之困難性。
35. Discuss the pathophysiology, etiology, and overall morbidity and mortality of patients presenting with acute aortic dissection.  
討論急性主動脈剝離之病理生理機轉、原因及罹病死亡率。
36. Explain the emergency department management of acute aortic dissection.  
解釋急診處理急性主動脈剝離之方法。
37. Differentiate between expanding, ruptured, and dissecting aortic aneurysms.  
鑑別診斷主動脈瘤之擴張性、破裂及剝離性。
38. Describe the pathophysiology and clinical presentation for acute peripheral ischemia and outline the emergency department management.  
描述急性週邊血管缺血之生理病理機轉及其臨床表徵，並指出急診之處置。
39. Differentiate between superficial and deep venous thrombosis.  
區分淺層或深層靜脈栓塞之差異。
40. Outline the emergency management of acute thrombophlebitis.  
描述急性血栓靜脈炎之急診處置。
41. Discuss the pathophysiologic connection between thrombophlebitis and pulmonary embolism.  
討論血栓靜脈炎與肺栓塞二者間的生理病理之關聯。
42. Discuss the use of thrombolysis in acute thrombophlebitis.  
討論血栓溶解治療在急性血栓靜脈炎之角色。



## CRITICAL CARE AND RESUSCITATION 重症照護及復甦術

### Goals:學習目標

1. Develop the ability to rapidly evaluate, diagnose, stabilize, and disposition critically ill patients.  
培養出快速評估、診斷、穩定、及後續處置重症病人的能力。
2. Learn respiratory, cardiovascular, renal and neurologic physiology and the pathophysiology of trauma, toxins, shock, sepsis, cardiac failure, and respiratory failure that affect critically ill patients.  
學習與重症病患相關的呼吸、心臟血管、腎臟、及神經生理學及創傷、毒物、休克、敗血症、心臟衰竭及呼吸衰竭的病理生理學。
3. Learn the principles of medical instrumentation and hemodynamic monitoring and be able to utilize them in the care of critically ill patients.  
學習醫療儀器操作(medical instrumentation)及血液動力監測的原理，並應用於照顧重症病患。
4. Learn the indications and develop the technical skills needed to perform diagnostic and therapeutic interventions in critically ill patients.  
學習處理重症病患時所使用的診斷和治療工具的適應症及技巧。
5. Learn the rational use of laboratory, radiographic and other diagnostic tests in the management of critically ill patients.  
學習處置重症病患時，合宜地使用檢驗、放射線及其他診斷工具。
6. Understand the etiologies and pathophysiology of cardiac arrest.  
瞭解心臟停止(cardiac arrest)的病因及病理生理學。
7. Learn to recognize the dysrhythmias associated with cardiac arrest and their treatment.  
學習辨認引發心臟停止的異常心律不整及其處置。
8. Learn the American Heart Association recommendations and develop skill in the performance of standard resuscitative procedures.  
學習美國心臟學會對標準急救流程之建議與技巧。
9. Learn the principles of pharmacotherapy and the routes and dosages of drugs recommended during cardiac arrest and following resuscitation.  
學習心臟停止時及後續復甦急救之藥物治療原則、途徑和劑量。
10. Learn the indications for and terminating resuscitation.  
學習開始及終止復甦急救之適應時機。

### Objectives:學習內容

1. Demonstrate ability to rapidly perform history and physical exams in critically ill patients.  
展現可快速對重症病人快速完成病史詢問及理學檢查之能力。

2. Demonstrate the ability to perform the following procedures: oral endotracheal intubation, nasotracheal intubation, cricothyrotomy, needle thoracostomy, tube thoracostomy, central intravenous placement, swan ganz placement, transvenous cardiac pacing, arterial line placement, ABG, and foley catheterization.  
學習進行下列操作的能力：經口氣管插管術、經鼻氣管插管術、環甲膜切開術(cricothyrotomy)、針頭胸腔穿刺術(needle thoracostomy)、胸管胸腔造口術(tube thoracostomy)、中央靜脈管置放(central intravenous placement)、swan ganz 導管置放、經靜脈節律器置放 (transvenous cardiac pacing)、動脈管置放 (arterial line placement) 、動脈氣體分析(ABG)及導尿管置放(foley catheterization)。
3. Demonstrate the ability to use and interpret data from ECG monitors, ECGs, cardiac outputs, hemodynamic monitoring, arterial blood gases, pulse oximetry, end tidal CO<sub>2</sub> monitors and respirators.  
學習使用及判讀心電圖監測器、心電圖、心臟輸出(cardiac outputs)、血液動力監測(hemodynamic monitoring)、動脈氣體分析、血氧監測器、潮氣末二氧化碳監測器(end tidal CO<sub>2</sub> monitors)、及呼吸器 (respirators) 數據的能力。
4. Describe the dosages, indications and contraindications of pharmacologic interventions for shock, cardiac failure, dysrhythmias, sepsis, trauma, toxins, respiratory failure, hepatic failure, renal failure, and neurologic illnesses.  
學習休克、心臟衰竭、心律不整、敗血症、創傷、毒物、呼吸衰竭、肝衰竭、腎衰竭、及神經疾病之藥物治療的劑量、適應症、及禁忌症。
5. Demonstrate the ability to manage a patient on a ventilator.  
學習處理使用呼吸器病患的能力。
6. Demonstrate appropriate judgement in the management of critically ill patients.  
學習在處置重症病患時，能進行適當判斷。
7. Demonstrate appropriate prioritization of diagnostic and therapeutic interventions in critically patients.  
學習重症病人診斷及治療之優先順序。
8. Demonstrate ability to diagnose and treat shock, sepsis, fluid and electrolyte abnormalities, cardiac failure, cardiac dysrhythmias, renal failure, hepatic failure, and toxicologic emergencies.  
學習診斷及治療休克、心臟衰竭、体液及電解質不平衡、心律不整、敗血症、毒物急症、肝衰竭、及腎衰竭的能力。
9. Demonstrate an understanding of the appropriate use of consultants in critically ill patients.  
學習何時應該對重症病患進行適當的會診。
10. Demonstrate an understanding of the ethical and legal principles applicable to the care of critically ill patients.  
學習照顧重症病人的倫理及法律原則。
11. Demonstrate knowledge of the various etiologies of cardiac arrest and the corresponding therapeutic approaches.  
學習心臟停止的各種原因及其相對治療方式的知識。
12. Demonstrate knowledge of the factors affecting blood flow, oxygen delivery and oxygen consumption during cardiac arrest.  
學習心臟停止時，影響血液流動、氧氣運送 (oxygen delivery)、及氧氣消耗的知識。

13. Demonstrate ability to recognize dysrhythmias associated with cardiac arrest and knowledge of ACLS protocols for their treatment.  
學習辨識引起心臟停止之心律不整的能力及其 ACLS 的處置原則。
14. Demonstrate ability to manage the airway during cardiac arrest, including mouth-to-mouth ventilation, bag-valve-mask ventilation, endotracheal intubation, cricothyroidotomy, and recognition of the obstructed airway.  
學習心臟停止時，處理呼吸道的能力,包含口對口換氣(mouth-to-mouth ventilation)、袋瓣罩換氣(bag-valve-mask ventilation)、氣管插管、環甲膜切開術(cricothyroidotomy)、及呼吸道阻塞的辨識。
15. Demonstrate ability to perform external closed chest cardiopulmonary resuscitation.  
學習操作體外心臟按壓技巧。
16. Discuss the dosages, indications and contraindications for pharmacologic therapy during cardiac arrest and following resuscitation. Demonstrate knowledge of the techniques for drug administration including peripheral and central venous, endotracheal, intraosseous and administration.  
討論心臟停止時及後續復甦急救之藥物治療原則及劑量。
17. Demonstrate ability to safely perform internal and external defibrillation.  
學習操作體內及體外去顫術(defibrillation)的能力。
18. Demonstrate understanding of "Do not resuscitate" orders, advance directives, living wills and brain death criteria.  
明瞭"不作急救"醫囑、生前遺囑、及生前意願及腦死的標準。

## DERMATOLOGY 皮膚科急症

### Goals:學習目標

1. Develop ability to recognize and appropriately treat disorders of the skin and mucous membranes.  
養成判別及適當治療皮膚及黏膜疾病之能力。

### Objectives:學習內容

1. Demonstrate ability to diagnose and treat dermatitis and eczema.  
學習診斷及治療皮膚炎和濕疹。
2. Demonstrate ability to diagnose and treat soft tissue infections.  
學習診斷及治療軟組織感染。
3. Demonstrate ability to diagnose and treat maculopapular lesions.  
學習診斷及治療斑疹及丘疹。
4. Demonstrate ability to diagnose papular and nodular skin lesions.  
學習診斷丘狀及結節狀之皮膚病變。
5. Demonstrate ability to diagnose and discuss the etiologies of erythema.  
學習診斷並探討紅斑的病因。
6. Demonstrate ability to diagnose and discuss the etiologies of vesicular and bullous skin lesions.  
學習診斷及探討水疱及大疱皮膚病變之病因。
7. Demonstrate ability to diagnose common skin cancers.  
展現診斷常見之皮膚癌。
8. Demonstrate knowledge of the cutaneous manifestations of acute systemic illnesses.  
學習急性系統性疾病之皮膚表現。
9. Discuss the indications for emergent dermatologic consultation.  
探討緊急皮膚科照會之適應症。
10. Discuss the common pharmacologic agents used to treat dermatologic disorders and their indications.  
探討治療皮膚疾病時常用的藥物及其適應症。

## EMERGENCY MEDICAL SERVICES 緊急醫療救護系統

### Goals:學習目標

1. Learn common organizational structures of emergency medical services.  
學習到院前緊急救護的基本組織架構。
2. Learn the educational requirements and skill levels of various EMS providers.  
學習各層級救護技術員之教育需求及技術水準。
3. Learn principles of EMS system operations.  
學習緊急醫療救護系統運作原則。
4. Learn basic principles of disaster management.  
學習災難處置的基本原則。
5. Learn principals of prehospital triage and emergency medical care delivery.  
學習到院前檢傷分類及緊急醫療救護運送的原則。
6. Learn basic principals of EMS research.  
學習 EMS 研究的基本原則。
7. Learn medicolegal principals relating to EMS.  
學習和 EMS 有關之醫學法律原則。

### Objectives:學習內容

1. Actively participate in EMS system.  
積極地參與 EMS 系統。
2. Describe local, state and national components of EMS.  
了解縣市地區及國家性 EMS 的組成結構。
3. Demonstrate ability to use all elements of the EMS communication system.  
學習使用 EMS 各種通訊設備
4. Demonstrate ability to provide initial and continuing education to all levels of EMS personnel.  
學習提供 EMS 各層級救護技術員基礎及繼續教育之能力。
5. Demonstrate familiarity with research methodologies relating to EMS and disaster management.  
學習 EMS 及災難醫學研究的方法。
6. Discuss medicolegal liability issues relating to EMS.  
討論和 EMS 相關之法律責任。
7. Participate in EMS continuous quality improvement.  
參與 EMS 持續的品質改善。
8. Participate as an observer or team member in ground and air medical transport systems.  
以觀察者或成為隊員的角色參與地面及空中醫療運輸系統。
9. Discuss development of EMS prehospital care protocols.  
探討到院前緊急醫療救護標準作業的制定。

10. Discuss basic concepts of mass casualties.  
討論大量傷患的基本概念。
11. Discuss basic concepts of disaster management.  
討論災難處置的基本概念。
12. Demonstrate understanding of appropriate utilization practices for ground and air medical services.  
學習地面及空中救護的適當運作。
13. Discuss the process of disaster management notification,, response, and medical care on a local, state and national level.  
討論縣、市、及國家各層面災難處置、通報、反應、及醫療照護的程序。
14. Discuss the importance of and methods for medical control in EMS systems.  
討論 EMS 系統中醫療管制的重要性及方法。
15. Discuss the differences in education and skill level of various EMS providers.  
討論各層級救護技術員之教育及技術水準。
16. Describe common environmental, toxicologic, and biological hazards encountered in the prehospital care setting as well as injury prevention techniques.  
探討到院前救護常遭遇之環境、毒物、及生物危害和預防受傷的技術。

## ENVIRONMENTAL ILLNESS 環境醫學

### Goals:學習目標

1. Learn the pathophysiology, patient evaluation and management of thermal and chemical burns.  
學習有關蒸氣及化學燒灼傷患者的病理生理學、評估與處理
2. Learn the pathophysiology, patient evaluation and management of electrical injury, including lightning injury.  
學習有關電氣傷害(包括電擊)患者之病理生理學、評估與處理。
3. Learn the pathophysiology, patient evaluation and management of radiation injuries.  
學習有關輻射傷害患者的病理生理學、評估與處理
4. Learn the pathophysiology, patient evaluation and management of hypothermia and frostbite.  
學習有關低體溫症與凍傷患者的病理生理學、評估與處理
5. Learn the pathophysiology, patient evaluation and management of heat illness.  
學習有關熱傷害患者的病理生理學、評估與處理
6. Learn the pathophysiology, patient evaluation and management of drowning and near-drowning.  
學習有關溺斃及溺水患者的病理生理學、評估與處理
7. Learn the pathophysiology, patient evaluation and management of barotrauma.  
學習有關因壓力變化受傷的患者其病理生理學、評估與處理
8. Learn the pathophysiology, patient evaluation and management of high altitude illness.  
學習有關高山症患者的病理生理學、評估與處理。

### Objectives:學習內容

1. Demonstrate the correct care for the burn victim.  
熟悉對於燒燙傷患者正確的照護
2. Demonstrate the ability to calculate surface area burned for various age groups using a Lund-Browder chart.  
學習如何使用 Lund-Browder chart 為不同年齡層的患者做燒燙傷面積的估算。
3. Demonstrate the method for determining the correct maintenance fluid regimen for the burned patient.  
熟悉對於燒燙傷患者給予正確的流質餵食的方法
4. State the admission criteria for the burned patient, including criteria for burn unit admission.  
了解燒燙傷患者住院的標準，包含住燒燙傷中心的標準。
5. State the chemical mechanism of injury for hydrochloric and sulfuric acids, hydrofluoric acid, alkaline burns, and white phosphorous burns.  
了解鹽酸、硫酸、氫氟酸、鹼性物質及白磷造成灼傷的化學機轉
6. List the differences between alkali and acid burns.  
了解強鹼與強酸灼傷的差異性
7. State the treatment for an acid burn, alkali burn, hydrofluoric acid burn, and white phosphorous burn.  
學習強酸灼傷、強鹼灼傷、氫氟酸灼傷及灼傷的治療

8. Appropriately manage acute chemical burns in the Emergency Department.  
學習在急診適當的處急性化學物質傷害
9. State the common injuries/conditions which are associated with electrical injuries.  
了解電擊常見的傷害和表現
10. Demonstrate appropriate clinical and diagnostic evaluation of the electrically-injured patient.  
熟悉電擊傷害患者的臨床評估和診斷
11. List the complications resulting from electrical injuries.  
列出電氣傷害引起的併發症
12. State the common injuries and conditions associated with lightning injuries.  
了解雷擊常見的傷害和表現
13. List the appropriate clinical and diagnostic evaluation of the lightning-injured patient.  
熟悉雷擊傷害患者的臨床評估和診斷
14. Demonstrate the ability to evaluate and treat lightning injury.  
學習如何評估與處置雷擊患者
15. State the conditions which are associated with radiation injuries.  
了解有關輻射傷害的各種情況
16. State the appropriate clinical and diagnostic evaluation of the radiation-injured patient.  
熟悉對於輻射傷害患者的臨床評估和診斷
17. List the decontamination procedures required for the radiation-injured patient.  
熟悉對輻射傷害患者應有的除污流程
18. State the pathophysiologic mechanisms associated with inhalation injury.  
了解吸入性傷害之病理生理機轉
19. State the indications for intubation in the smoke inhalation patient.  
熟悉對於嗆傷患者插管治療的適應症
20. List the common toxins commonly associated with a house fire.  
了解一般房屋火災會產生的常見毒性物質
21. Demonstrate appropriate management of inhalation injuries, and recognize those patients who require emergent intubation.  
學習對於吸入性傷害的適當處理，並能辨識出哪些患者需要緊急插管治療
22. Demonstrate the correct care for the frostbite victim.  
學習對於凍瘡傷患者正確的照護方法
23. Discuss the criteria for superficial frostbite and for deep frostbite.  
探討表淺及深層凍瘡傷的診斷標準
24. Demonstrate the correct care for the hypothermic patient.  
學習對於體溫過低患者正確的照護方法
25. State the various techniques for passive and active rewarming.  
了解各種被動與主動回溫的技術和方法
26. Discuss the appropriate interpretation of blood gases in the hypothermic patient.  
探討對於低體溫患者其血中氣體分析判讀的適當方式
27. State specific considerations regarding intubation, use of external cardiac compression, and use of



cardiovascular medications in the hypothermic patient.

學習對於低體溫患者進行插管、心臟按摩及使用心血管藥物及強心劑的特殊考量

28. Demonstrate the correct care for the heat cramp, heat exhaustion, and heat stroke patient.  
學習對於熱痙攣、輕度中暑、中暑患者正確的照護方法
29. State the definition for heat stroke and list the patients at risk for heat stroke.  
了解中暑的定義，並列出中暑的高危險群患者
30. State the criterion that differentiate the various types of heat illness.  
熟悉對於不同熱症的診斷標準
31. Demonstrate the correct care for the near-drowning/drowning patient.  
學習對溺水及溺斃患者的正確照護方法
32. State the pathophysiological processes associated with immersion.  
了解有關溺水的病理生理學
33. List the complications resulting from near-drowning/drowning.  
了解起因於溺水及溺斃的併發症
34. State the pathophysiology of barotrauma of descent, barotrauma of ascent, air embolism, and decompression sickness.  
了解因高度改變所造成的壓力傷害、氣體栓塞及檢壓病症的病理生理學
35. Discuss the appropriate therapy for dysbaric injuries.  
學習對於不當壓力所致傷害的適當治療方法
36. List the indications for hyperbaric oxygen therapy.  
了解高壓氧治療的適應症
37. Discuss emergency first aid for a diving accident at sea.  
學習海中淺水意外的緊急救護
38. State the symptoms associated with acute mountain sickness, high altitude cerebral edema, high altitude pulmonary edema, and high altitude retinopathy.  
熟悉急性高山症、因為高海拔造成之腦水腫、肺水腫及視網膜病症的相關症狀
39. Discuss the appropriate therapy for mountain sickness, high altitude cerebral edema, high altitude pulmonary edema, and high altitude retinopathy.  
學習急性高山症、因為高海拔造成之腦水腫、肺水腫及視網膜病症的適切治療

## ETHICS AND PROFESSIONALISM 醫學倫理與職業道德

### Goals:學習目標

1. Learn basic ethical principles relevant to emergency medicine.  
學習與急診醫學有關的基本倫理原則
2. Apply ethical principles to specific patient encounters to assist in decision making.  
針對特定病人應用醫學倫理原則作為臨床決策依據
3. Learn basic legal principles relevant to emergency medicine.  
學習與急診醫學相關的基本法律原則
4. Learn the similarities and differences between legal and ethical principles relating to emergency medicine.  
學習與急診醫學相關的法律和醫學倫理原則之異同

### Objectives:學習內容

1. Discuss the historical, philosophical, and practical implications of beneficence, autonomy, justice, truth-telling and confidentiality to emergency medical practice and research.  
了解醫學倫理中”有益”、”自主”、”公平”、”誠實”與”保密”等原則對於急診臨床及研究，在歷史、哲學與實務角度之意義
2. Demonstrate ability to assess patients' decisional capacity/competency.  
學習評估病人作決定的能力和正確性
3. Discuss laws relating to drug dispensing, regulation, and abuse.  
了解藥物之調配、管制及濫用相關的法律議題
4. Discuss the importance of proper documentation in medicolegal proceedings.  
探討在醫學法律訴訟程序中適當的舉證與紀錄之重要性
5. Demonstrate ability to apply ethical principles to resuscitation, including advance directives, decision to forgo resuscitation, euthanasia, and organ transplantation.  
熟悉急救的倫理道德原則，包括先立遺囑、放棄急救、安樂死、以及器官捐贈移植等議題
6. Demonstrate knowledge of cost containment, resource allocation, quality of care and access to care issues.  
探討費用政策資源分配，醫療品質及醫療可近性等議題
7. Describe basic principles of medical malpractice.  
了解處理醫療處置失當的一般原則
8. Demonstrate familiarity with managed care plans.  
學習熟悉管理式醫療
9. Discuss the components of hospital administration and interactions as they relate to emergency medicine.  
了解醫院的行政部門和其對急診醫學相關議題的互動的內容
10. Discuss the components and responsibilities of physician-physician relationships.

了解醫師之間的關係及責任的歸屬問題

11. Demonstrate knowledge of laws regarding reportable diseases, patient care, and patient transfers.  
熟悉報告性疾病、病患照護和病患轉診等相關法律
12. Demonstrate knowledge of laws regarding reporting of deaths and appropriate documentation.  
熟悉病人死亡的報告及其確認等的相關法律
13. Discuss the role of the expert witness in medicolegal proceedings.  
探討醫學法律訴訟程序中專家證人所扮演的角色為何

## GENERAL MEDICINE 一般內科

### Goals:學習目標

1. Assimilate general concepts of internal medicine, history taking and physical examination skills to develop a systemic evaluation for patients presenting to the emergency department.  
學習內科學、詢問病史及理學檢查技巧的一般知識，以便對於急診病患能夠進行有系統的評估
2. Learn the pathophysiology, presentation, and management of diseases related to the alimentary tract.  
學習和消化道相關的疾病之病理生理學、臨床表現和處理方法
3. Develop knowledge of the pathophysiology, presentation, and management of common hematologic diseases.  
學習常見血液疾病的病理生理學臨床表現與處理方法
4. Master the understanding of the components of the immune system, and the disorders of hyper- and hypofunction of the immune system.  
熟悉免疫系統的架構，並了解免疫系統亢進與不足所造成的各種疾病
5. Know the major systemic infectious disorders, their diagnosis and treatment.  
了解主要的全身感染疾病及其診斷與治療方法
6. Learn the pathophysiology, evaluation, and treatment of renal disorders.  
學習腎臟疾病的病理生理學、臨床表現及治療方法
7. Develop knowledge of the etiologies, manifestations, and treatment of endocrine and metabolic disorders.  
學習內分泌與新陳代謝疾病的致病原因、臨床表現及治療方法
8. Master an understanding of the diseases of the respiratory system, including pathophysiology, evaluation, and treatment.  
熟悉呼吸系統的疾病，並了解其病理生理學、臨床表現與治療方法

### Objectives:學習內容

1. Demonstrate appropriate history taking skills for all patients presenting to the emergency department.  
學習對所有急診患者做適當的病史詢問
2. Demonstrate the ability, based on the history acquired, to do an immediate assessment and initial stabilization, followed by a complete directed examination.  
學習根據病史對於患者做出立即評估與使病情穩定，隨後並給予完整檢查的能力
3. Combine the knowledge defined in the objectives below with the history and physical examination, to develop an appropriate differential diagnosis for all presentations.  
學習結合病史及理學檢查產生的結果，對所有的臨床表現預估做出適切的鑑別診斷
4. Demonstrate knowledge of the causes, presentation, and management of esophageal problems.  
學習食道疾病的病因、臨床表現及處理方法
5. Describe the etiologic agents, pathophysiology, and management of infectious diarrhea.  
了解傳染性腹瀉的致病原因、病理生理學及處理方法

6. Demonstrate the ability to evaluate, manage, and appropriately disposition patients with gallbladder and liver disorders.  
學習對於肝膽疾病患者的評估、處理與適當的安置之方法
7. Demonstrate knowledge of the presentation, diagnosis, and management of obstructive lesions of the alimentary tract.  
了解消化道阻塞之臨床表現、診斷與處理方法
8. Demonstrate the ability to perform intubation procedures of the alimentary tract, including, but not limited to, NG tube insertion and anoscopy.  
能夠進行消化道插管程序，例如插入鼻胃管、肛門鏡檢查
9. Describe the presentations, work-up, and appropriate treatment of patients with inflammatory processes of the alimentary tract.  
熟悉消化道發炎過程的臨床表現、診斷檢查和適當的治療方法
10. Demonstrate familiarity with the evaluation, treatment, and appropriate disposition of patients with gastrointestinal bleeding.  
了解胃腸道出血患者的評估、治療與適切的處置方法
11. Demonstrate knowledge of the proper evaluation and treatment of the patient with sickle cell disease.  
針對鎌狀細胞疾病患者能做出適當的評估與治療
12. Describe the appropriate steps in the assessment and treatment of the patient with bleeding disorders.  
熟悉出血性疾病的評估與治療的適當步驟
13. Demonstrate knowledge in the work-up, treatment, and appropriate disposition of the patient with anemia.  
學習對於貧血患者的檢查、治療及適當的處方法
14. Demonstrate understanding of the appropriate use of transfusions of blood components, including diagnosis and treatment of transfusion reactions.  
了解如何適當地使用輸血治療，以及輸血反應的診斷和處理方法
15. Demonstrate familiarity with the mechanism and manifestations of immune compromise, including that caused by infection with HIV.  
了解免疫系統低下的機制及臨床表現，包含起因於愛滋病毒感染
16. Discuss and be able to differentiate non-AIDS causes of immune hypofunction.  
了解並能鑑別出非愛滋病造成的免疫機能不足
17. Discuss the manifestations, initial treatment, and appropriate disposition of patients with rheumatologic and autoimmune diseases.  
探討風濕性與自體免疫疾病患者臨床表現、基本治療及適當的處置方法
18. Demonstrate understanding of the work-up and treatment of patients with hypersensitivity reactions, including transplant rejection.  
了解過敏反應的患者(包括移植排次)的診斷檢查與治療方法
19. Demonstrate knowledge of the concepts of cellular and humoral immunity and the proper use of immunizations in patients presenting to the emergency department.  
了解細胞及體液免疫力知識，並且能對於急診患者正確的給予預防注射

20. Demonstrate familiarity with the manifestations of, evaluation for, and treatment of bacterial infections, especially including gonorrhea, syphilis, tuberculosis, and tetanus.  
熟悉細菌感染的臨床表現、評估和治療，特別是淋病、梅毒、破傷風和結核病
21. Describe the diagnostic criteria for, and the treatment of, toxic shock syndrome. (1-treatment; 2-criteria)  
了解毒性秀克症候群的診斷標準及治療方式
22. Know the characteristics of sepsis in different age groups.  
了解敗血症在不同年齡族群的臨床表現
23. Demonstrate knowledge of the appropriate initial treatment of the patient with possible sepsis.  
學習對疑似敗血症病患執行適當的初步治療
24. Demonstrate knowledge of the vector, predisposing factors, clinical course, work-up, and treatment of rickettsial diseases.  
學習立克次體疾病的知識：包含病媒、易感染因子、臨床病程、診斷檢查與治療等
25. Discuss the manifestations of, treatment of, appropriate disposition for, and immunization (when appropriate) of patients with viral infections.  
學習病毒感染之患者的臨床表現、治療、適當處置及預防注射
26. Demonstrate knowledge of the time course, vectors, and treatment of the more common protozoal diseases.  
學習多數常見原蟲感染疾病的病程、病媒與治療方法
27. Demonstrate familiarity with the causes, presentation, initial management and disposition of patients with glomerular disorders.  
熟悉腎絲球疾病的病因、臨床表現、初步處理與處置方法
28. Describe the common etiologic agents, and appropriate work-up and disposition of patients with infections of the renal system.  
了解腎臟系統感染患者的常見致病原因、適當的診斷檢查及處置方法
29. Discuss the common causes, metabolic manifestations, treatment (including dialysis) and disposition of patients with renal failure.  
熟悉腎衰竭患者常見原因、代謝上的表現、治療（包含透析治療）與後續處置方法
30. Describe the common complications of dialysis therapy and how they manifest in patients presenting to the emergency department.  
了解透析治療常見的併發症，及病人在急診現場的臨床表現方法
31. Define the etiologies, and demonstrate understanding in the evaluation and treatment of patients with acid/base disorders.  
了解酸鹼異常的致病原因，評估及治療方法
32. Demonstrate understanding of the etiologies, manifestations, and treatment of fluid and electrolyte abnormalities.  
了解體液與電解質失衡的致病原因、臨床表現及治療方法
33. Discuss the manifestations, work-up, treatment, and disposition of patients with disorders of glucose metabolism.  
熟悉葡萄糖代謝疾病的患者其臨床表現、診斷檢查、治療及處置方法

34. Demonstrate understanding of the common endocrine abnormalities, especially regarding presentation, initial evaluation and management, and disposition.  
了解常見內分泌異常的臨床表現、最初評估、處理及後續處置方法
35. Discuss acute treatment for patients presenting with disorders of severe malnutrition.  
探討有嚴重營養不良患者的緊急處理方法
36. Demonstrate knowledge in the etiologic agents causing, presentation and evaluation, and disposition of patients with infections of the respiratory system.  
了解呼吸系統感染患者的致病原因、臨床表現、評估及處置方法
37. Describe the etiology, manifestation, and treatment of patients with acute and chronic airway disease.  
了解急性和慢性呼吸道疾病患者的致病原因、臨床表現與治療
38. Discuss the predisposing factors, presentation, and appropriate treatment of patients with pulmonary embolus.  
探討肺栓塞的危險因子、臨床表現及適當方法
39. Demonstrate knowledge of the potential presentation, work-up, treatment and appropriate disposition of patients with chest masses.  
了解胸部腫瘤患者的可能表現、診斷檢查、治療方法與適當的後續處置方法
40. Demonstrate knowledge of the presentation, work-up, treatment, and disposition of patients with chronic granulomatous disease.  
了解慢性肉芽腫疾病患者的臨床表現、診斷檢查、治療及後續處置方法
41. Demonstrate knowledge of the appropriate evaluation of patients with abnormalities of the lymphatic system.  
了解淋巴系統異常患者的適當評估方法
42. Demonstrate knowledge of the presentation, treatment, and disposition of patients with malignancies of the hematopoietic system.  
學習有造血系統惡性疾病患者的臨床表現、治療與後續安置方法
43. Demonstrate understanding of the etiologies, diagnosis, and treatment of adult respiratory distress syndrome and multisystem organ failure.  
學習有關成人呼吸窘迫症候群及多重器官衰竭的致病原因、診斷及治療方法

## GENERAL SURGERY 一般外科

### Goals:學習目標

1. Develop familiarity with common general surgical disorders.  
熟悉了解一般常見的外科疾病
2. Develop relevant history and physical exam skills.  
發展適當的病史詢問與理學檢查的技巧
3. Develop procedural skills relevant to general surgery.  
了解一般外科的流程技術
4. Develop skill in the overall assessment of the general surgical patient.  
發展對於一般外科患者的全面性評估能力
5. Learn indications for consultation and surgical intervention in patients with acute abdominal pain.  
學習判定急性腹痛患者之會診，以及進行外科手術之必要性
6. Learn the principles of care of the perioperative patient.  
學習周邊手術患者的照護原則

### Objectives:學習內容

1. Demonstrate ability to perform an appropriate history and physical exam in patients with general surgical disorders, including an appropriate preoperative evaluation.  
展現對於一般外科患者執行適切的病史詢問及理學檢查之能力，包括適當的術前評估
2. Discuss the differential diagnosis of acute abdominal pain and demonstrate ability to evaluate, treat and obtain appropriate consultation.  
討論急性腹痛的鑑別診斷，並展現評估、治療及獲得適當會診的能力
3. Demonstrate ability to diagnose and treat common disorders of the breasts.  
展現診斷及治療乳房常見疾病之能力
4. Demonstrate ability to diagnose and treat common disorders of the anus and rectum.  
展現診斷及治療直腸及肛門常見疾病之能力
5. Demonstrate ability to perform common procedural skills including gastric intubation, tube thoracostomy, placement of central venous lines, wound closure, and abscess incision and drainage.  
展現執行外科一般流程技術之能力，包括胃管插入、胸廓造口術、中心靜脈導管放置、傷口縫合、以及膿瘍切開引流術
6. Demonstrate ability to assist in the operative and perioperative therapy of surgical patients.  
有能力去協助在開刀及周邊手術治療之外科患者
7. Discuss the common fluid and electrolyte disturbances in surgical patients and demonstrate ability to manage patients with these disorders.  
討論外科患者常見之體液及電解質不平衡情形，並且有能力去處理這些症狀
8. Demonstrate appropriate prophylaxis and treatment of surgical infections.  
說明針對外科感染之適切的預防及治療方式



9. Demonstrate ability to manage pain in surgical patients.  
展現處理外科患者術後疼痛之能力
10. Discuss the role of abdominal imaging in the evaluation of abdominal pain and demonstrate ability to appropriately order and interpret imaging modalities in surgical patients.  
討論腹部影像在評估腹部疼痛的角色，並且有能力下適當的醫囑及解釋影像代表意義
11. Demonstrate ability to rapidly recognize and treat patients with abdominal aortic aneurysm.  
展現迅速辨識及治療腹主動脈瘤患者的能力
12. Demonstrate ability to manage patients with acute and chronic peripheral vascular insufficiency.  
展現處置急、慢性周邊血管功能不全之患者之能力
13. Demonstrate ability to manage patients with soft tissue infections.  
展現處理軟組織感染患者之能力
14. Demonstrate ability to diagnose common structural defects of the abdominal wall.  
展現診斷常見之腹壁結構缺損之患者的能力

## GERIATRICS 老人醫學

### Goals:學習目標

1. Understand the changes in anatomy, physiology, pharmacology, and psychology that occur with aging.  
了解解剖學、生理學、藥理學、心理學在老人醫學中不同的地方
2. Learn the overall principles of managing the geriatric patient in an emergency care environment.  
學習緊急老人醫學全面性的處理原則
3. Understand societal biases regarding aging in the context of the emergency health care system.  
了解在緊急醫療照護系統中，對於老人問題的偏差觀念
4. Learn the concept of functional status as the interaction of age, disease, and environment.  
學習老人醫學隨著年齡、疾病和環境的交互影響下其功能狀態的觀念
5. Learn the ethical principles involved in medical decision making with regard to advance directives and life sustaining treatment.  
學習老人醫學中道德上的原則，包含醫療上的決定，如預立遺囑與維生治療等
6. Learn the pathophysiology and emergency treatment of elderly patients with common medical, neurologic, psychologic, and surgical diseases.  
學習年長病患在急診治療中，有關一般醫學、神經學、精神學及外科等相關疾病

### Objectives:學習內容

1. Demonstrate a sensitivity to the needs of elderly patients and respect for their ability to make decisions.  
展現對於年長病患需求的敏感度，並且尊重其做決定的能力
2. Demonstrate the ability to do a formal mental status exam for the elderly patient in the emergency department environment.  
展現在急診中對於年長患者正規的精神狀態檢查的能力
3. Demonstrate the ability to assess decision making capacity in the elderly; discuss the types and meaning of advance directives.  
展現對於年長患者醫療處置的評估能力，並討論預立遺囑的形式與其意義
4. Discuss which laboratory tests are physiologically altered with aging and which tests are not changed.  
討論研究中顯示，隨著老化在生理上的改變，並且測試此原則是否改變
5. Discuss which common diseases (appendicitis, myocardial infarction, etc.) present in elderly patients with atypical signs and symptoms that are different than the presentations in younger patients.  
討論一般疾病（如盲腸炎、心肌梗塞等）其典型臨床表現與徵兆在老人與年輕患者中的差異
6. Demonstrate the ability to do functional assessments evaluating activities of daily living (ADL) of elderly patients in an emergency department setting.  
展現在急診中利用機能估計去評估年長患者日常生活活動力能力
7. Demonstrate the ability to define and diagnose dementia and delirium in elderly patients.  
展現對於癡呆與精神錯亂的年長患者診斷與判定的能力

8. Discuss the etiologies and pathophysiology of falls in the elderly; demonstrate the ability to care for the elderly fall victim.  
討論老人醫學中其疾病與致病原因，並展現照護能力
9. Discuss the management of elderly patients who present with polypharmacy.  
討論對於食慾過盛的年長患者之處置
10. Demonstrate the ability to detect depression, alcohol and drug abuse, and anxiety disorders in elderly patients.  
展現察覺年長患者其沮喪、酒精藥物濫用、與焦慮的能力
11. Demonstrate the ability to detect and manage elder mistreatment, including physical abuse, sexual assault, physical neglect, and psychological abuse and neglect.  
展現察覺並治療受虐的年長患者的能力，包括性侵害、身體上心理上的受虐等
12. Demonstrate the ability to diagnose and treat myocardial infarction in elderly patients; discuss the importance of myocardial salvage for elderly patients with acute myocardial infarction.  
展現診斷及處置年長患者之心肌梗塞的能力，並討論對於年長的急性心肌梗塞患者其搶救的重要性
13. Demonstrate the ability to diagnose and treat elderly patients with cerebral vascular accidents.  
展現對於年長患者在腦血管意外中的診斷與處置之能力
14. Demonstrate the ability to diagnose and manage trauma and acute abdominal emergencies in the elderly patient; discuss the differences in the approach to elderly patients with surgical emergencies compared to the non-elderly.  
展現診斷與處理急診中年長患者之外傷及急性腹部急症，並討論年長患者外科急症與一般患者之差別
15. Demonstrate the ability to manage elderly patients presenting with syncope, dizziness, bleeding disorders, and acute infections.  
展現處理對於有暈厥、頭昏眼花、出血等疾病與急性侵染表現的年長患者的能力
16. Demonstrate the ability to address the psychosocial needs of the elderly being discharged from the emergency department.  
展現對於從急診離院的年長患者，解釋其生體與心理上需求的能力

# NEUROSCIENCES 神經科

## Goals:學習目標

1. Learn the anatomy, pathophysiology, presentation, and management of common nervous system disorders and injuries.  
學習一般神經系統疾病與傷害的解剖學、病痛、表徵和處置
2. Develop skill in the performance of a screening and detailed neurological evaluation.  
發展執行詳盡的神經學評估之能力
3. Develop skill in the use and performance of diagnostic procedures in the evaluation of neurological disorders.  
發展評估神經疾病之診斷過程的使用與執行能力
4. Effectively utilize radiologic studies to diagnose neurological disease or injury.  
有效的利用放射檢查進而診斷神經疾病與傷害
5. Diagnose, stabilize and provide initial treatment of injuries and diseases of the brain, spinal cord, bony spine and peripheral nerves.  
針對大腦、脊椎神經、脊椎、末梢神經等傷害與疾病執行診斷、穩定病情與最初的治療
6. Learn how CSF shunts function and learn to evaluate patients with possible shunt malfunction.  
學習如何執行腦脊液分流及評估有可能的分流障礙

## Objectives:學習內容

1. Demonstrate a brief and a complete neurological history and examination on patients with various levels of consciousness, including trauma patients.  
針對各種知覺反應等級的患者（包含外傷患者），展現精要且完整的病史詢問與檢查
2. Demonstrate knowledge of neuroanatomy and application of this knowledge in the neurological examination to localize neurological disorders.  
展現神經解剖學的知識，並且在神經檢查中應用，進而局部化神經疾病
3. Demonstrate the ability to recognize and manage cerebrovascular ischemic disorders, seizure disorders, headache, spinal cord compression, shunt malfunction, neurological infections, and neurological inflammatory states.  
展現處理與辨識“缺血性中風、癲癇發作、頭痛、脊椎神經壓擠、分流障礙、神經感染及神經炎症性的狀況”等症狀之能力
4. Demonstrate the ability to recognize and manage cranial nerve disorders, demyelination disorders, neuromuscular disorders, pseudotumor cerebri, normal pressure hydrocephalus, and peripheral neuropathy.  
展現處理與辨識“頭蓋骨的神經疾病、髓鞘脫失、神經肌的疾病、pseudotumor cerebri、腦水腫與末梢神經病變”等症狀之能力
5. Demonstrate skill in the initial evaluation and management of blunt and penetrating traumatic injuries of the CNS.

- 展現評估與處理因外傷造成的中樞神經系統遲鈍與傷害的能力
6. Describe initial management of fractures, subluxations, and dislocations of the spine.  
描述針對脊椎脫位、半脫位、斷裂等最初的處理
  7. Demonstrate the ability to recognize and manage acute cerebrovascular and spinal cord disorders that are amenable to neurosurgical intervention.
  8. Describe the main classifications of headaches and state the doses, indications, and contraindications for agents used to manage each of these types of headaches.  
描述頭痛的主要分類並陳述使用來處置這些類型頭痛的藥劑之劑量、適應症及禁忌症
  9. Describe the indications, techniques, and contraindications for neurological imaging procedures including plain radiographs, computerized tomographic scans, magnetic resonance imaging, tomography).  
描述神經學造影程序的禁忌症、技術與適應症，包含平面 x 光片、電腦斷層掃描、核磁共振影像、斷層攝影
  10. Demonstrate accurate interpretation of neurological imaging studies including plain radiographs and computerized tomographic scans.  
展現正確的神經學影像判讀解釋，包含 x 光片、電腦斷層掃描
  11. Demonstrate skill in the performance and interpretation of spinal fluid studies.  
展現 spinal fluid studies 施行與解釋的能力
  12. Discuss the indications, contraindications, and dosages of agents used to treat neurological infections in pediatric and adult populations.  
討論小兒與成人中，治療神經侵染之藥物的適應症、劑量、禁忌症
  13. Demonstrate spinal immobilization techniques.  
展現椎骨的固定技術
  14. Demonstrate ability to recognize and manage spinal cord compression due to non-traumatic causes.  
展現針對非外傷引起的脊椎壓迫之辨識與處置能力
  15. Describe the indications and techniques for control of intracranial pressure.  
描述對於顱內壓控制的指示與技術

## OBSTETRICS/GYNECOLOGY 婦產科

### Goals:學習目標

1. Learn the principle of contraception.  
避孕之原則
2. Develop expertise in the diagnosis and management of emergent complications of pregnancy.  
緊急懷孕併發症之診斷與處置
3. Develop expertise in the management of uncomplicated and complicated labor and delivery.  
順產與難產之處置
4. Develop expertise in the management of sexual assault.  
性侵害之處置
5. Learn the principles of management of gynecologic and obstetrical trauma.  
婦科與產科外傷之處置
6. Learn diagnosis and treatment of genital and pelvic infectious diseases.  
生殖器與骨盆腔感染症之處置
7. Develop expertise in the diagnosis and management of abdominal pain in females.  
女性腹痛之診斷與處置
8. Develop expertise in the diagnosis and management of vaginal bleeding.  
陰道出血之診斷與處置

### Objectives:學習內容

1. Demonstrate ability to correctly perform a complete gynecologic exam.  
能正確且完整地施行婦科理學檢查
2. Discuss the differential diagnosis and demonstrate ability to evaluate and treat patients with vaginal discharge.  
能評估、鑑別診斷與治療有陰道分泌物之病患
3. Discuss the differential diagnosis and demonstrate ability to evaluate and treat patients with pelvic pain.  
能評估、鑑別診斷與治療有下腹疼痛之病患
4. Discuss the differential diagnosis and demonstrate ability to evaluate and treat vaginal bleeding in pregnant and non-pregnant women.  
能評估、鑑別診斷與治療有陰道出血之懷孕與未懷孕病患
5. Discuss the differential diagnosis and demonstrate ability to evaluate and treat patients with dysmenorrhea.  
能評估、鑑別診斷與治療有經痛之病患
6. Demonstrate ability to evaluate and treat patients with genitourinary infections including PID, UTI, STD, TOA and vaginitis.  
能評估、鑑別診斷與治療有泌尿生殖器官感染(包括骨盆腔發炎、尿道感染、性病、卵巢輸卵管膿瘍與陰道炎)之病患

7. Describe the symptoms and differential diagnosis of toxic shock syndrome.  
瞭解 toxic shock syndrome 之症狀與鑑別診
8. Demonstrate ability to perform perinatal and neonatal resuscitations.  
能執行新生兒急救
9. Describe the relative effectiveness and complications of various contraceptive methods, including post-coital douche, coitus interruptus, condoms, diaphragm, rhythm method, oral contraceptives, injectable hormonal agents and IUD.  
瞭解下列避孕方法之效力與風險：性交後沖洗、性交中斷、保險套、子宮帽、週期避孕法、口服避孕藥、賀爾蒙注射與子宮內避孕器
10. Demonstrate ability to evaluate and manage the care of patients with suspected ectopic pregnancy.  
能評估與治療疑似子宮外孕之病患
11. Discuss the signs, symptoms and treatment of placenta previa.  
瞭解前置胎盤之症狀與治療
12. Discuss the signs, symptoms and treatment of abruptio placenta.  
瞭解胎盤剝離之症狀與治療
13. Discuss the signs, symptoms and treatment of preeclampsia and eclampsia.  
瞭解子癇症與子癇前政之症狀與治療
14. Discuss the normal stages of labor and the time course for each.  
瞭解正常產程之各個階段及其時間
15. Demonstrate ability to determine the APGAR score and discuss the significance of different values.  
能計算 APGAR 分數，並瞭解其意義
16. Define the following according to ACOG guidelines: rape, statutory rape, sexual molestation, and deviant sexual assault.  
瞭解美國婦產科學院對下述名詞之定義：強姦、法定強姦、性騷擾與變態性侵害
17. Demonstrate ability to evaluate and treat sexual assault victims, including evidence collection, appropriate patient counselling and pregnancy prevention.  
能評估與處置性侵害受害者，包括採集證據、提供諮詢與預防懷孕
18. Discuss the differential diagnosis and demonstrate ability to diagnose and treat genital ulcerations.  
能評估、鑑別診斷與治療有陰部潰瘍之病患
19. Discuss the pathophysiology, differential diagnosis, signs, symptoms and treatment of ovarian torsion.  
瞭解卵巢扭轉之病生理學、鑑別診斷、症狀與治療
20. Discuss the management of trauma during pregnancy.  
瞭解孕婦之外傷處置
21. Discuss the indications for perimortem caesarian section and describe the technique.  
瞭解對瀕死孕婦施行剖腹產之適應症與方法
22. Demonstrate ability to perform uncomplicated full-term deliveries.  
能施行正常足月自然產之助產
23. Demonstrate ability to manage patients with hyperemesis gravidarum.  
能處置妊娠劇吐患者
24. Discuss the diagnosis and treatment of complicated labor including premature rupture of membranes,

premature labor, failure to progress, fetal distress, and ruptured uterus.

能診斷與處置包括早期破水、早產、產程遲至、胎兒窘迫與子宮破裂等難產情形

25. Describe the management of complicated deliveries, including prolapsed cord, uncommon presentations, dystocia, uterine inversion, multiple births and stillbirth. (1 for prolapsed cord; 2 for others)

能處置包括臍帶脫垂、胎位不正、子宮無力、子宮倒翻、多胞胎與死產等異常分娩情形

26. Demonstrate ability to diagnose and manage postpartum complications including retained products, endometritis and mastitis.

能診斷與處置包括子宮內殘留物、子宮內膜炎與乳腺炎等產後併發症

27. Discuss RH incompatibility.

瞭解母嬰有不同 RH 血型時應注意事項

28. Describe the presentation a patient with hydatidiform mole.

瞭解有水囊狀胎塊病患之表徵

29. Describe the classification scheme for abortion.

瞭解流產之分類



## OPHTHALMOLOGY 眼科

### Goals:學習目標

1. Develop relevant history and physical exam skills  
學習病史詢問與理學檢查之技能
2. Learn to recognize and treat emergent causes of visual loss  
學習診治視力衰退之緊急原因
3. Learn the principles of ocular trauma management  
學習眼部外傷之處置原則
4. Learn the evaluation and management of common ophthalmologic complaints.  
學習常見眼科症狀之評估與處置

### Objectives:學習內容

1. Demonstrate an understanding of normal ocular anatomy.  
瞭解眼部解剖構造
2. Demonstrate ability to perform an ocular exam.  
能施行眼科檢查
3. Recognize and discuss the differential of abnormal fundusoscopic findings.  
能辨認眼底異常，並鑑別診斷
4. Demonstrate the technique of slit lamp examination.  
能辨認眼底異常，並鑑別診斷
5. Demonstrate ability to measure intraocular pressures.  
能測量眼壓
6. Demonstrate knowledge of the dosages, indications and contraindications of topical and systemic ophthalmologic medications.  
瞭解眼科藥物(含眼藥水、藥膏、口服或靜注藥劑等)之劑量、適應症與禁忌
7. Discuss the differential diagnosis of acute loss of vision.  
瞭解急性視力衰退之鑑別診斷
8. Discuss the differential diagnosis and demonstrate correct evaluation of patients presenting with a painful eye.  
能正確評估與鑑別診斷有眼睛疼痛之病患
9. Discuss the differential diagnosis and demonstrate correct evaluation of patients presenting with a red eye.  
能正確評估與鑑別診斷有紅眼之病患
10. Demonstrate ability to evaluate and manage chemical injuries of the eye.  
能評估與處置眼部化學傷害

11. Demonstrate ability to evaluate and manage blunt and penetrating trauma to the eye and surrounding tissues.  
能評估與處置眼球與周圍組織之鈍挫傷與穿刺傷
12. Demonstrate ability to evaluate and manage ocular foreign bodies.  
能評估與處置眼部異物
13. Discuss the presenting signs, symptoms and management of acute angle closure glaucoma.  
瞭解急性青光眼之症狀與處置
14. Discuss the presenting signs, symptoms and management of orbital and periorbital cellulitis.  
瞭解眼眶內與眼眶周圍蜂窩組織炎之症狀與處置
15. Describe and identify the various patterns seen on fluorescein staining of the eye.  
能辨識眼角膜螢光染色檢查各類型之表現
16. Discuss the ocular manifestations of systemic disease.  
瞭解系統性疾病之眼部表徵
17. Discuss the indications for emergent ophthalmologic consultation.  
瞭解眼科緊急會診之適應症

## ORTHOPEDECS 骨科

### Goals:學習目標

1. Develop relevant history and physical exam skills.  
學習病史詢問與理學檢查之技能。
2. Learn use of the diagnostic imaging modalities available for the evaluation of orthopedic disorders.  
學習使用影像學檢查評估骨科疾患。
3. Develop skill in the evaluation and management of musculoskeletal trauma.  
能評估與處置肌肉骨骼外傷。
4. Develop skill in the diagnosis and treatment of inflammatory and infectious disorders of the musculoskeletal system.  
能評估與處置肌肉骨骼系統之發炎或感染症
5. Learn principles of acute and chronic pain management in patients with musculoskeletal disorders.  
學習處置肌肉骨骼傷病患者急性與慢性疼痛之原則。

### Objectives:學習內容

1. Develop ability to correctly perform a history and physical in patients with musculoskeletal disorders.  
能對肌肉骨骼傷病患者正確地詢問病史與施行理學檢查
2. Demonstrate ability to correctly order and interpret radiographs in patients with orthopedic injuries.  
能對骨骼損傷病患施行正確的放射線檢查，並能正確地判讀結果
3. Demonstrate knowledge of standard orthopedic nomenclature.  
瞭解標準的骨科術語
4. Demonstrate knowledge of appropriate aftercare and rehabilitation of orthopedic injuries.  
瞭解骨骼損傷之適當後續治療與復健
5. Demonstrate knowledge of the differences in pediatric and adult skeletal anatomy and indicate how those difference are manifest in clinical and radiographic presentations.  
瞭解成人與兒童骨骼之解剖學差異，及其在臨床與放射線檢查的表現
6. Demonstrate ability to apply orthopedic devices, including compressive dressings, splints and immobilizers.  
能使用包括壓迫式包紮、夾板與固定器等骨科器具
7. Demonstrate skill in performance of the following procedures: fracture/dislocation immobilization and reduction, arthrocentesis, extensor tendon repair.  
能執行包括骨折、脫臼之固定與復位，關節穿刺與伸側肌腱修補等術式
8. Demonstrate ability to prioritize and manage the treatment of orthopedic injuries in multiple traumapatients.  
對多重骨骼損傷患者，能區分各個骨骼損傷治療之先後順序，並有效處理
9. Describe the presentation of patients with inflammatory and infectious disorders and demonstrate ability to diagnose and treat them.

- 瞭解肌肉骨骼系統之發炎或感染症，並能診斷與處置
10. Demonstrate ability to diagnose and treat soft tissue foreign bodies.  
能診斷與處置軟組織內異物
  11. Describe the presentations, complications, diagnosis, management and prognosis of patients with human and animal bites.  
瞭解人咬傷或動物咬傷之表徵、併發症、診斷、處置與預後
  12. Describe the presentations, complications, diagnosis and management of compartment syndromes.  
瞭解腔室症候群之表徵、併發症、診斷與處置
  13. Demonstrate ability to provide regional anesthesia, including hematoma blocks, Bier blocks and radial, ulnar, median, axillary, posterior tibial and sural nerve blocks.  
能施行神經阻斷式局部麻醉，包括 hematoma blocks、Bier blocks，以及橈神經、尺神經、正中神經、腋神經、後脛神經與腓腸骨神經等之神經阻斷
  14. Discuss the dosages, indications, contraindications and side effects of standard analgesic and sedative agents used to treat patients with acute orthopedic trauma and demonstrate skills in their use.  
瞭解使用於急性骨科創傷之標準止痛與鎮靜藥物之劑量、適應症、禁忌與副作用，並能適當使用
  15. Discuss the dosages, indications, contraindications, side effects and relative potency of standard oral analgesics used in treatment of patients with musculoskeletal disorders.  
瞭解使用於治療肌肉骨骼傷病患者之標準口服止痛藥物之劑量、適應症、禁忌、副作用與藥效
  16. Discuss the differential diagnosis, historical features, physical and examination findings of patients with low back pain.  
瞭解下背痛病患之鑑別診斷、病史、理學檢查以及其他檢驗、檢查之要點
  17. Demonstrate ability to recognize and treat soft tissue infections involving muscle, fascia, and tendons.  
能診治侵犯到肌肉、筋膜或肌腱之軟組織感染
  18. Describe diagnosis and treatment of overuse syndrome.  
能診治過度使用症候群
  19. Describe how to evaluate and preserve amputated limb parts.  
瞭解如何評估與保存截肢傷之殘肢
  20. Demonstrate knowledge of joint injuries, evaluation and grading of joint injuries, treatment of joint injuries and prognosis.  
瞭解關節損傷及其治療之知識，能評估關節損傷，加以分級，並知悉其預後
  21. Discuss evaluation and treatment of soft tissue injuries such as strains, penetrating soft tissue injuries, crush injuries, and high pressure injection injuries.  
能評估與治療包括拉傷、穿刺性軟組織傷、壓砸傷與高壓射擊傷等軟組織傷害

# OTOLARYNGOLOGY 耳鼻喉科

## Goals:學習目標

1. Develop relevant history and physical exam skills.  
發展出適洽的詢問病史和理學檢查的技巧。
2. Learn the evaluation and management of common problems of the head and neck.  
學習評估及處理頭頸部常見的問題。
3. Learn the evaluation and management of facial trauma.  
學習評估及處理臉部創傷。
4. Develop skill in the evaluation and management of upper airway disorders.  
發展評估與處理上呼吸道病變的技巧。
5. Learn use of the diagnostic imaging modalities available for evaluation of head and neck disorders.  
學習使用影像形式來診斷評估頭頸部的病變。

## Objectives:學習內容

1. Demonstrate ability to correctly perform a history and physical in patients with disorders of the head, ears, nose, pharynx, neck and larynx.  
展現對於有頭耳鼻喉頸咽疾病的患者有能力做出正確的病史詢問與理學檢查。
2. Demonstrate ability to diagnose and treat infections of the head and neck including rhinitis, otitis, labyrinthitis, sinusitis, mastoiditis, laryngitis, pharyngitis, epiglottitis, stomatitis, and gingivitis.  
有能力診斷及治療頭頸部感染，包含鼻炎、耳炎、內耳迷路炎、竇炎、乳突炎、喉炎、咽頭炎、會厭炎、口腔炎、齒齦炎。
3. Demonstrate ability to control anterior and posterior epistaxis including placement of nasal packing.  
有能力處理前庭出血與後庭出血，包括鼻填塞的方法
4. Demonstrate ability to diagnose and treat disorders of the tympanic membrane and middle ear perforation.  
有能力診斷並處置耳膜病變及中耳穿孔。
5. Demonstrate ability to perform incision and drainage of oropharyngeal abscesses.  
有能力執行口咽膿瘡的切割及引流。
6. Demonstrate knowledge of common dental emergencies and indications for emergent referral.  
展現常見牙科急症的常識及緊急轉介的適應症。
7. Demonstrate ability to evaluate and manage disorders of the mandible, including fractures, dislocations, and infections.  
有能力處理下頷骨病變評估，包含骨折、脫臼與侵染。
8. Demonstrate ability to evaluate and manage trauma to the head, neck, face, teeth.  
有能力評估與處理頭、頸、臉及齒部外傷。
9. Demonstrate ability to diagnose and treat disorders of the salivary glands.  
有能力診斷及處理唾液腺病變。

10. Demonstrate ability to remove foreign bodies from the ears, nose and throat.  
展現移除耳鼻喉異物的能力。
11. Demonstrate ability to perform direct, indirect and fiberoptic laryngoscopy.  
展現直接、間接纖維光學的喉鏡檢查能力
12. Demonstrate knowledge of the indications, contraindications and complications of surgical airway techniques and demonstrate ability to perform a cricothyroidotomy.  
建立外科呼吸道技術的適應症、禁忌症、併發症並且有能力執行環狀軟骨切開術。
13. Demonstrate ability to obtain airway control in patients with major facial trauma.  
展現對於大面積臉部外傷患者維持呼吸道暢通。
14. Demonstrate ability to perform facial nerve blocks including supraorbital, infraorbital, mental, auricular and dental blocks.  
有能力執行顏面神經阻斷，包含上下眼窩、眶下的、耳及牙齒等部位。
15. Demonstrate knowledge of uncommon but life threatening infections of the head and neck including cavernous sinus thrombosis, Ludwig's angina, and malignant otitis.  
展現一些罕見但危及生命的頭頸部侵染的知識，包含海綿體靜脈竇栓塞、口底之化膿性蜂窩組織炎及惡性耳炎

## PEDIATRICS 小兒科

### Goals:學習目標

1. Develop skill in infant/pediatric resuscitation.  
發展嬰幼兒/小兒科的急救技巧
2. Develop skill in performance of appropriate pediatric history and physical exam, including general growth and development, assessment and knowledge of current immunization requirements.  
發展小兒科病史詢問和理學檢查的能力，包括生長發育和目前疫苗接種需求的評估知識
3. Learn the etiologies, significance, and treatment of fever and infection in the child.  
學習小兒發展及感染病因、特殊表現及治療
4. Learn the manifestations and significance of abdominal related complaints in the child.  
學習兒童腹部疾病之表徵與意義
5. Learn the etiologies and treatment of neurologic emergencies in the child.  
學習兒童神經急症之處置與致病原因
6. Learn the physiology and derangements of fluid and electrolyte management in children.  
學習小兒液體及電解質之生理與失衡之處理。
7. Learn the indications of social and/or psychological disturbances.  
學習分辨兒童社會與心理異常情況及適應性
8. Learn the specific problems of pediatric trauma victims.  
學習小兒創傷患者之特殊問題
9. Learn the manifestations and treatment of pediatric cardiac abnormalities.  
學習小兒科心臟異常的表徵與治療
10. Learn the pathophysiology, etiologies, and treatment of respiratory disorders of children.  
學習兒童呼吸異常之生理反應、致病原因和治療
11. Learn the pathophysiology, etiologies, and treatment of common serious endocrine and hematologic disorders of children.  
學習兒科常見之嚴重內分泌及血液異常之生理反應、致病原因和治療
12. Learn the pathophysiology, etiologies, and treatment of common serious gynecologic and urologic conditions of children.  
學習兒科常見之嚴重婦科泌尿系統之生理反應、致病原因和治療
13. Learn to recognize and provide appropriate treatment for orthopedic and soft tissue problems of childhood.  
學習發覺兒童骨骼及軟組織的問題並給予適當的治療
14. Learn the common dermatologic diseases and dermatologic manifestations of systemic diseases in children.  
學習兒童常見的皮膚科疾病及全身性疾病其皮膚上的表徵
15. Learn to recognize and treat children with common and/or serious problems of the head and neck.  
學習辨識與處置兒童常見的頭部與頸部問題

Objectives:學習內容

1. Demonstrate correct airway management including pediatric endotracheal intubation.  
示範正確的呼吸到處置，包括兒科氣管內管插管
2. Demonstrate ability to obtain and utilize intravenous access including venipuncture, intraosseous needle placement, and administration of appropriate dose of emergency medications.  
示範包括靜脈穿刺、骨內針放置、適當劑量的緊急藥物治療等的靜脈侵入能力
3. Demonstrate knowledge of the significance of fever in children of various ages, and the ability to perform an "optimal resuscitation" including Yale Observation Score of the febrile child.  
了解不同年齡層的兒童其發燒的意義，並示範做出包含 Yale Observation Score 等的最理想復甦的能力
4. Demonstrate knowledge of common infectious diseases of childhood, including appropriate work-up and treatment of meningitis, sepsis, pneumonia, urinary tract infection, and bacteremia.  
示範具備兒童常見感染疾病的知識及處置能力，包括腦膜炎、敗血症、肺炎、泌尿道感染的菌血症
5. Demonstrate ability to properly perform a pediatric lumbar puncture.  
示範正確地做出小兒脊髓穿刺的能力
6. Demonstrate knowledge of the pathophysiology and manifestations of common and/or serious diseases of the gastrointestinal tract and abdominal cavity of children, including gastroenteritis, intussusception, volvulus, Meckel's, anaphylactoid purpura, and appendicitis.  
瞭解兒童一般常見的腸胃道及腹部急症的表徵，包括腸胃炎、腸套疊、腸扭轉、麥氏憩室症、過敏性紫斑症和盲腸炎
7. Discuss the differential and preliminary work-up of abdominal masses found in the pediatric patient.  
討論如何針對兒科患者腹部腫瘤發現做出鑑別診斷與初步檢查
8. State the appropriate management of children with seizures, both febrile and afebrile.  
說明針對有發燒與無發燒痙攣兒童的正確處理
9. Demonstrate familiarity with the diagnosis and management of Reye's syndrome.  
熟悉雷式症候群的診斷與處置
10. Demonstrate knowledge of hydrocephalus, its differential, treatment and the management of neurologic shunt problems.  
熟悉水腦症之相關知識，其鑑別及治療和有關腦瘤引流問題之處置
11. Calculate fluid and electrolyte requirements of a dehydrated child.  
計算脫水孩童所需的電解質與體液
12. Discuss the diagnostic work-up and disposition when child abuse and/or neglect is suspected.  
討論疑似受虐兒童診斷檢查及處理流程
13. Demonstrate ability to perform a history and physical exam of an alleged victim of sexual abuse.  
示範對聲稱被性侵害患者詢問病史及理學檢查的能力
14. Demonstrate ability to direct a pediatric trauma resuscitation.  
示範兒科外傷急救的能力
15. Demonstrate knowledge of the significance and correct treatment of various patterns of burns in



pediatric patients.

展現兒科中各種燒傷型態的意義及應施與正確治療的知識

16. Interpret a series of pediatric EKG's, showing awareness of the normal physiologic differences from adult EKG's.  
了解小兒心電圖和大人不同，並能夠作正確的判讀
17. Discuss the common pediatric dysrhythmias, their diagnosis and treatment.  
討論常見之兒童節律不整其診斷與治療
18. Discuss the types of congenital cyanotic and noncyanotic heart disease, their complications and treatment.  
討論先天性發紺及非發紺的心臟疾病、其併發症與治療
19. Demonstrate ability to read pediatric chest x-rays.  
展現判讀兒科胸部 X 光片的能力
20. Demonstrate ability to identify a patient who needs prophylaxis for rheumatic fever or subacute bacterial endocarditis.  
展現判斷需要預防風濕熱或亞急性細菌性心內膜炎患者的能力
21. Discuss the differential diagnosis of chest pain in children and adolescents, noting differences from adults, and demonstrating knowledge of proper work-up and treatment.  
討論兒童和成人胸痛之鑑別診斷和其中之差異，並展現適切的診斷檢查與治療
22. Discuss the differential of congestive failure in the pediatric patient and demonstrate knowledge of appropriate treatment.  
討論兒科患者鬱血性心衰竭的鑑別，並展現適當治療的知識
23. Discuss the anatomy and physiology of the respiratory tract in children.  
討論兒童呼吸道的解剖學與生理學
24. Demonstrate correct performance of peak expiratory flow measurement, pulse oxymetry and end-tidal CO<sub>2</sub>.  
示範正確的測量尖峰呼氣流速、脈搏血氧監測和吐氣末二氧化碳
25. Demonstrate management of patients with upper airway infection suspected of having epiglottitis.  
展現對於疑似有會厭炎之上呼吸道感染患者的處理方式。
26. Correctly interpret soft tissue lateral neck x-rays in children.  
正確的判讀兒童側面頸部軟組織 X 光
27. Discuss the etiologies and demonstrate correct management of children with lower and upper airway diseases including asthma, bronchiolitis, cystic fibrosis, pneumonia.  
討論上下呼吸道疾病致病原因及展現正確的處理，包含氣喘、細支氣管炎、囊胞性纖維症、肺炎
28. Demonstrate correct management of foreign bodies of the upper airway and ability to diagnose and arrange disposition for patients with lower airway foreign bodies.  
展現正確處理上呼吸道異物，且有對於下呼吸道有異物患者施行診斷及安排後續治療
29. Demonstrate correct management of the pediatric patient with diabetes and/or diabetic ketoacidosis.  
展現正確的處理糖尿病和血中酮酸中毒的兒科患者
30. Demonstrate knowledge of the etiologies of anemia in children and the appropriate diagnostic evaluation.

了解兒童貧血的原因並且能適當的評估診斷

31. Demonstrate knowledge of the differential diagnosis and work-up of the jaundiced child.  
展現鑑別診斷及檢查患有黃疸病童的知識
32. Discuss the differential diagnosis and work-up of the child with evidence of a bleeding disorder.  
討論兒童出現凝血異常的徵兆時，應該有的鑑別診斷及檢查
33. Demonstrate correct evaluation and treatment of a child with dysuria or a suspected urinary tract infection.  
示範正確評估與治療解尿疼痛或疑似尿道感染的兒童
34. Demonstrate knowledge of the evaluation and treatment for phimosis, paraphimosis, balanitis.  
示範評估及治療包莖、箝閉包莖、龜頭炎的知識
35. Demonstrate knowledge of the evaluation and treatment of testicular disorders including torsion and epididymis (sp).  
展現對於評估及治療睪丸疾病的知識，包含睪丸扭轉及副睪炎
36. Discuss the differential and required workup for a pediatric patient with a limp.  
討論跛行兒童患者必需應施行的鑑別診斷與檢查。
37. Demonstrate x-ray interpretation and perform proper splinting for a variety of pediatric fractures, distal radius and ulna, and distal tibia and fibula.  
示範 X 光片的判讀，且針對兒科不同的骨折患者（末端橈骨、尺骨、脛骨、腓骨）實行適當的夾板固定。
38. Demonstrate ability to perform and interpret the results of an arthrocentesis.  
示範執行關節穿刺術並判讀結果的能力。
39. Discuss the findings and disposition of a patient with a suspected autoimmune syndrome such as juvenile arthritis, lupus, or dermatomyositis.  
討論疑似自體免疫症候群如青少年關節炎、狼瘡、皮肌炎等之表徵與處置。
40. Demonstrate ability to perform reduction of a dislocated joint.  
示範執行脫臼關節復位的能力。
41. Discuss the etiology and treatment of acute soft tissue infections and perform an incision and drainage.  
討論急性軟組織感染的致病原因與治療並執行切開及引流。
42. Correctly diagnose common pediatric exanthemas including varicella, measles, monilia, roseola, rubella, pityriasis, scabies, and erythema infectiosum.  
正確的診斷出常見的小兒科皮膚疹，包含水痘、麻疹、念珠球菌病、玫瑰疹、德國麻疹、糠疹、疥瘡及感染性紅疹。
43. Demonstrate knowledge of the differential diagnosis and evaluation of children with petechiae.  
展現對於鑑別診斷及評估兒童瘀斑的知識。
44. Demonstrate ability to correctly perform and interpret the exam of the ears, nose and throat.  
展現出正確執行並解釋耳鼻喉檢查的能力。
45. Demonstrate knowledge of pediatric facial and orbital infections and their treatment.  
展現治療小兒科臉部及眼窩感染的知識。
46. Discuss the causes of neonatal shock and demonstrate the ability to perform and infant resuscitation, including endotracheal intubation and insertion of an umbilical venous catheter.

- 討論新生兒休克的原因，並展現新生兒復甦術的能力，包含氣管內管插管和臍靜脈導管的放置
47. Demonstrate proper performance of a suprapubic bladder aspiration.  
展現適當執行恥骨上膀胱吸抽吸的能力
  48. Discuss the findings and differential of sudden infant death syndrome, and demonstrate knowledge of the proper legal steps and ability to support the family.  
討論有關嬰兒猝死症候群的發現與鑑別，並展現適當的法律程序與對於家屬給予支持的能力。
  49. Discuss the differential diagnosis and acute treatment of the weak infant and child, including polio, botulism and the Landry-Guillain-Barre syndrome.  
討論虛弱的幼兒的鑑別診斷與急性治療，包含小兒麻痺、臘腸桿菌中毒和 Landry-Guillain-Barre 症候群。
  50. Demonstrate knowledge of the evaluation and treatment of children with diarrheal illness.  
展現評估和治療兒童腹瀉疾病的知識。
  51. Demonstrate knowledge of the common poisonings of childhood and their treatments.  
展現兒童常見中毒的知識及治療。
  52. Manage the care of a child with immersion/drowning.  
處理沉浸或溺斃兒童的照護。
  53. Manage the care of a child with a foreign body ingestion, discussing the complications, diagnostic steps and treatment.  
處理吞入異物的兒童的照護，並討論其併發症、診斷步驟與治療
  54. State the differential diagnosis of a child with upper or lower GI bleeding, and discuss the evaluation and treatment.  
陳述兒童上下腸胃道出血的鑑別診斷，並討論其評估與治療
  55. Discuss the differential diagnosis and work-up of renal failure or anuria in children.  
討論兒童腎衰竭或無尿症的鑑別診斷與檢查
  56. Demonstrate ability to evaluate children with syncope and discuss its differential diagnosis.  
示範正確的評估兒童的暈厥，並討論其鑑別診斷
  57. Discuss the signs, symptoms, treatment and complications of Kawasaki disease.  
討論川崎症候群的徵象、症狀、治療與併發症。
  58. Discuss the risk factors associated with teenage suicide.  
討論與青少年自殺相關的危險因子。
  59. Discuss the differential of abnormal vaginal bleeding in childhood and demonstrate ability to perform a complete genital exam on children of various ages.  
討論兒童陰道不正常出血的鑑別，並展現針對不同年齡層幼童患者執行完整的生殖器檢查之能力。
  60. Demonstrate ability to evaluate and treat a child with altered mental status and interpret a pediatric cranial CT scan.  
展現評估及治療意識狀態改變的兒童的能力，並能判讀兒科頭顱電腦斷層掃描。
  61. Discuss the technique for reducing an incarcerated inguinal hernia.  
討論籬塞性鼠蹊部疝氣復位的技術。
  62. Discuss the common pediatric malignant tumors.

討論常見的兒科惡性腫瘤。

63. Differentiate between the presentation, diagnostic test results and treatment of transient synovitis and septic joint.

區分出滑膜炎與細菌性關節在表現診斷檢查結果與處置上的差異。

## PSYCHIATRY 精神科

### Goals:學習目標

1. Develop familiarity with common psychotherapeutic agents.  
熟悉各種常見之精神科用藥。
2. Learn relevant interviewing techniques to deal with patients with various psychiatric disorders.  
學習對各種精神病患進行訪談之技巧。
3. Learn principles of managing the violent patient.  
學習處理具暴力傾向病人之處理原則。

### Objectives:學習內容

1. Demonstrate ability to conduct an interview in patients with acute psychiatric disorders.  
需具備對急性精神病患對談之能力。
2. Demonstrate ability to perform a mental status exam in patients with normal and altered mental status.  
需能對神智正常或異常病患進行精神狀態評估。
3. Discuss the indications for emergent psychiatric consultation.  
了解緊急會診精神科之各種適應症。
4. Discuss the indications for routine psychiatric consultation.  
了解常規會診精神科之各種適應症。
5. Demonstrate ability to assess suicide risk.  
需具備評估自殺危險因子的能力。
6. Demonstrate ability to interact with violent emergency department patients and discuss protection techniques for patients and staff members.  
需具備處理具暴力傾向病人之急診病人之能力，並具保護病人及工作人員之能力。
7. Discuss techniques of avoiding an acute psychiatric crisis in the emergency department.  
學習如何避免急診室中急性精神危機之發生。
8. Define major categories of psychiatric illness including thought, mood, anxiety, somatoform and personality disorders.  
對各種主要之精神疾病做定義，包括思想障礙、情緒障礙、焦慮、心身症以及人格障礙。
9. Discuss the pharmacokinetics, indications, contraindications and side effects of the major classes of psychotherapeutic agents including major tranquilizers, sedative/hypnotics, and antidepressants.  
應了解各種主要精神科治療用藥之藥物動力學、適應症、禁忌症及副作用，其中包括鎮靜劑、安眠藥以及抗憂鬱劑。
10. Discuss the process of voluntary and involuntary commitment.  
了解病然的行為是有意或無意的。
11. Discuss the indications for physical and chemical restraint and demonstrate ability to use restraint appropriately.  
了解並運用物理性與藥理性拘束之適應症並可施行恰當的拘束方式。

12. Discuss the difference between pseudodementia (depression) and true dementia in the elderly.  
了解如何區分老年人之痴呆 (dementia) 及偽痴呆 (憂鬱症)。
13. Discuss organic causes of altered mental status including dementia and delirium.  
了解造成精神異常如痴呆及 delirium 之器質性病因而。
14. Demonstrate ability to differentiate organic and functional causes of altered mental status.  
具備如何區分精神異常之器質性與功能性病因之能力。
15. Demonstrate ability to diagnose and manage common intoxication and withdrawal syndromes.  
可正確診斷及處理常見之中毒與戒斷症候群。
16. Discuss the common complications of alcohol and drug abuse and demonstrate ability to diagnose and manage these complications.  
可正確處理酒精與藥物濫用常見之併發症並示範如何診斷及處理這些併發症。
17. Demonstrate ability to interact effectively with patients with personality disorders including antisocial, borderline, compulsive, dependent, histrionic and passive-aggressive personalities.  
了解如何有效地與患有人格障礙的患者互動，包括反社會型、邊緣型、強迫型、依賴型、戲劇型以及被動攻擊型人格障礙。

## RESEARCH 研究

### Goals:學習目標

1. Learn techniques of analyzing biomedical research.  
學習生物醫學研究之分析技巧。
2. Understand methods of hypothesis development and testing.  
瞭解研究假說之建立與檢定之方法。
3. Understand various types of study design and methodology.  
瞭解各種研究設計與方法學。
4. Learn various methods of obtaining consent for biomedical research.  
學習取得生物醫學研究同意書之各種方法。
5. Understand basic statistical methods.  
瞭解基礎的統計方法。
6. Understand the ramifications of ethical considerations in research.  
瞭解學術研究之倫理考量。
7. Learn the skills to develop a manuscript that is acceptable for publication in a peer review journal. 學  
習如何書寫可以被專家評論期刊所接受的研究文稿。
8. Understand grants and funding of research.  
瞭解何謂研究津貼與研究基金。

### Objectives:學習內容

1. Demonstrate an understanding of the advantages and disadvantages of various study designs, including the randomized clinical trial and case control, cohort, and cross sectional studies.  
須瞭解各種研究設計之優缺點，包括隨機比對臨床試驗、個案對照研究、世代研究以及橫斷研究。
2. Demonstrate an understanding of null and alternative hypotheses.  
須瞭解虛無假說與對立假說。
3. Demonstrate an understanding of the practical and ethical ramifications of implied and non-implied consent as they apply to hospital and pre-hospital research.  
須瞭解院內或到院前暗示性與非暗示性同意書之實作與倫理考量。
4. Understand the differences between interval, ordinal, nominal, parametric, and non-parametric data.  
了解連續、順序、類別、母數及無母數資料的差異。
5. Understand the differences between independent and dependent variables.  
懂得如何區分自變項與依變項。
6. Demonstrate an understanding of methodologies and variable types analyzed by the following statistical tests: t test, analysis of variance, chi square, Fischer exact test, and non-parametric tests for interval and nominal data.  
須瞭解各種統計方法與變項類型，針對連續變項與類別變項可使用 t-檢定，變異數分析，卡方檢定，Fischer exact 檢定及無母數檢定等方法分析。

7. Demonstrate an understanding of the terms "paired" and "tailed" (one and two).  
須瞭解何謂『成對』及『單尾或雙尾』檢定。
8. Demonstrate an understanding of type I and type II errors as they relate to sample size and variance.  
須瞭解何謂型一及型二誤差，以及樣本大小及變異數對其之影響。
9. Demonstrate an understanding of alpha, beta, and statistical power.  
須瞭解何謂 alpha、beta 及統計檢定力。
10. Demonstrate an understanding of the differences between statistical and clinical significance.  
懂得如何區分『統計意義』及『臨床意義』。
11. Define sensitivity, specificity, positive predictive value, and negative predictive value.  
定義敏感度、特異度、陽性預測值及陰性預測值。
12. Define mean, median, mode, standard deviation, and variance.  
定義平均值、中位數、眾數、標準差及變異數。
13. Demonstrate an understanding of confidence intervals.  
須瞭解何謂信賴區間。
14. Describe correlation and regression to the mean.  
描述相關性與迴歸的意義。
15. Discuss the advantages of single and double blind studies.  
討論單盲與雙盲設計之優點。
16. Demonstrate facility with at least one computer statistical program.  
須熟悉至少一種電腦統計程式。
17. Demonstrate an understanding of basic ethical issues in research including consent and researchers' interactions with corporate funding sources.  
須瞭解研究的基礎倫理問題，包括如何取得同意書以及如何與研究贊助來源互動。
18. Demonstrate an understanding of research funding.  
須瞭解何謂研究基金。
19. Demonstrate the skills necessary to write a publishable manuscript.  
須具備書寫可以被專家評論期刊所接受的研究文稿之能力。



## TOXICOLOGY 毒物學

### Goals:學習目標

1. Learn the pertinent aspects of the history and physical exam relative to acute poisoning with particular emphasis on clinical recognition of major toxic syndromes (toxidromes).  
學習對急性中毒患者作適當的病史詢問及理學檢查，特別強調各種中毒症候群 (toxidromes)之認識。
2. Learn the generic aspects of clinical management of poisoning, including stabilization and decontamination.  
學習急性中毒之一般性處理，包括生命跡象之穩定以及去污 (decontamination)。
3. Understand the principles, methods, and controversies of decontamination and enhancement of elimination of toxins.  
瞭解去污及加強毒物排除之原理、方法與其爭議性。
4. Learn the presenting signs, symptoms, laboratory findings, pathophysiology and treatment of common therapeutic drug poisonings, drugs of abuse, natural toxins, and general household poisons as delineated in the core curriculum of Emergency Medicine, section 17.  
瞭解常見之治療用藥、濫用藥物、自然毒素以及居家毒物所引起的中毒症狀、實驗室檢測法、病理生理學及其處理方式。(參見 Emergency Medicine, section 17 中的核心部分)
5. Learn the common hazardous materials (HAZMAT) of the workplace and prehospital operations with regard to HAZMAT incidents.  
瞭解各種工作場所與到院前急救所常見之化災事件。
6. Learn the principles of clinical operational toxicology and the major occupational toxins of Western society.  
瞭解社會上常見之臨床毒物學原理及因職業所引起中毒處理原則。
7. Learn the fundamentals of poisoning epidemiology, pharmacokinetics, and biotransformation, including the effects of pregnancy and lactation.  
學習中毒之基本流行病學、藥物動力學及生物轉換，包括對懷孕及哺乳之影響。
8. Learn to recognize, diagnose, assess and emergently manage acute and chronic complications of substance abuse.  
學習辨認、診斷、評估以及處理藥物濫用之急慢性併發症。
9. Learn the use of adjunctive services, including the toxicology laboratory and poison center, in the management of acute poisonings.  
學習運用輔助醫療服務 (如毒物實驗室及毒物中心) 於急性中毒之處理。
10. Learn the specific indications and implementation of specific therapeutic modalities, such as the use of antidotes, hemodialysis, and hyperbaric oxygen.  
學習特殊的中毒處理方法，如解毒劑、血液透析及高壓氧之運用。

### Objectives:學習內容

1. Demonstrate the ability to perform gastric lavage, whole bowel irrigation, skin and eye decontamination, and administration of activated charcoal.  
須具備施行胃灌洗、全腸灌流、皮膚與眼睛之去污以及處方活性炭之能力。
2. Discuss the indications, contraindications, dosages, and side effects of the currently available antidotes and antivenoms.  
應了解目前可取得之解毒劑與抗毒血清的適應症、禁忌症、劑量及副作用。
3. Demonstrate clinical recognition of toxidromes associated with drug overdose and drug withdrawal.  
須具備辨識各種藥物過量或戒斷所引起之臨床症候群的能力。
4. Demonstrate knowledge of the principles of hemodialysis and hemoperfusion and the toxic agents that can be removed by these methods.  
須瞭解可經由血液透析或血液灌洗 (hemoperfusion) 移除之毒物種類。
5. Demonstrate ability to recognize common venomous animals and poisonous plants and their clinical presentations and treatments.  
須具備辨識含有毒素之動植物及其臨床中毒症狀之能力，並可對其作出處置。
6. Demonstrate knowledge of the diagnostic laboratory including methods, limitations and costs.  
了解各種診斷方法之實驗操作方法，限制及費用。
7. Demonstrate knowledge of the drug interactions, side effects, and therapeutic levels of the commonly used therapeutic agents.  
須瞭解常見治療用藥之相互作用、副作用及其治療濃度。
8. Demonstrate the proper technique for handling a HAZMAT contaminated patient in the emergency department and the prehospital environment.  
須瞭解受化災污染病患於到院前與急診室之正確處理方式。
9. Demonstrate knowledge of the common household poisons, pesticides, hydrocarbons and metals, their effects and treatments.  
須瞭解常見之居家毒物、殺蟲劑、碳氫化合物及重金屬其作用與中毒處理方式。
10. Demonstrate the knowledge and clinical skills necessary to manage a patient poisoned by any of the following: acetaminophen, amphetamines, anticholinergics, aspirin, barbiturates, benzodiazepines, beta blockers, calcium channel blockers, carbon monoxide, caustics, cocaine, cyanide, cyclic antidepressants, digitalis, ethanol, ethylene glycol, INH, iron, lithium, methanol, opiates, organophosphates, phenytoin, theophylline and venomous animals.  
須瞭解有毒動物傷害及以下各種藥物中毒之臨床處理技巧：乙醯基氨基苯(acetaminophen)、安非他命、抗膽鹼劑 (anticholinergics)、阿司匹靈 (水楊酸類)、巴比妥酸鹽 (barbiturates)、苯二氮平類藥物 (benzodiazepines)、貝他阻斷劑、鈣離子阻斷劑、一氧化碳、腐蝕劑、古柯鹼、氰化物、環類抗鬱劑、毛地黃、乙醇、乙二醇 (ethylene glycol)、抗結核藥物 isoniazid (INH)、鐵劑、鋰鹽、甲醇、鴉片劑、有機磷、抗癲癇藥物 phenytoin 及兒茶鹼素 (theophylline)。
11. Demonstrate knowledge of basic principles of drug absorption, redistribution, metabolism, and elimination.  
須瞭解藥物吸收、重分佈、代謝及排除之藥物動力學。

# TRAUMA 創傷

## Goals:學習目標

1. To learn principles trauma care.  
學習創傷照護的原則。
2. To develop an organized approach to the assessment, resuscitation, stabilization and provision of definitive care for the trauma victim.  
發展出一套結構化的處理模式對創傷患者來做評估、救護、穩定與確定性的照護。
3. To learn use of the diagnostic imaging modalities available for evaluation of the trauma victim.  
學習應用診斷性影像檢查來評估創傷患者。
4. To develop procedural skills necessary in the evaluation and management of the trauma victim.  
發展出有系統的技巧來對創傷患者做評估與處理，。
5. To learn to recognize and treat immediate life and limb threatening injuries in the trauma victim.  
學習如何確認與處理具立即性生命危險及肢體有受到生命威脅的外傷患者。
6. To learn special considerations in the evaluation and management of the pregnant trauma victim.  
學習評估與管理孕婦創傷患者的特殊考性。
7. To learn special considerations in the evaluation and management of the pediatric trauma victim.  
評估與處理學習小兒創傷患者的特殊性。
8. To learn special considerations in the evaluation and management of the geriatric trauma victim.  
學習老年創傷患者評估與處理的特殊性。
9. To learn the principles of disaster management.  
學習災難處理的原則。
10. To learn the principles of burn management.  
學習燒傷處理的原則。
11. To learn a systems approach to trauma management that includes statewide trauma systems and categorization of institutions and emergency department.  
學習使用整合性的外傷處理模型，其中包含地區性創傷照護資源的機構與緊急醫療的部門。
12. To learn the principles of pre-hospital trauma care including the role of BLS and ALS ambulance services and air transport services.  
學習到院前的創傷照護原則，其中包含 BLS 與 ALS 救護車服務與空中轉運服務在此系統的角色定位。

## Objectives:學習內容

1. Demonstrate ability to rapidly and thoroughly assess victims of major and minor trauma.  
有能力處理不論是重大或是輕傷患者，做出迅速且完整的評估。
2. Demonstrate ability to establish priorities in the initial management of victims of life-threatening trauma.  
在最初處理外傷患者時，有能力立即判斷處理具有立即性生命威脅的創傷患者。

3. Demonstrate ability to manage fluid resuscitation of trauma victims.  
有能力處理創傷患者的輸液救護。
4. Demonstrate ability to manage the airway of trauma victims.  
示範能處理創傷患者的呼吸道問題。
5. Discuss the continuing care of the trauma victim, including operative, post-operative and rehabilitative phases of care.  
討論創傷患者的連續性照護，包括手術、術後，以及復健階段照護。
6. Demonstrate ability to perform the following procedures: oral and nasogastric intubation, venous cutdowns, insertion of large bore peripheral and central venous lines, insertion of arterial lines, tube thoracostomy, local wound exploration, peritoneal lavage, vessel ligation, repair of simple and complex lacerations, splinting of extremity fractures, and reduction and immobilization of joint dislocations, cricothyroidotomy, resuscitative thoracotomy, pericardiotomy, cardiography, aortic cross-clamping, and extensor tendon repair.  
示範能執行以下的醫療處置：口腔與鼻腔插管，靜脈切開術，周邊及中央靜脈大口徑靜脈導管置入術，動脈導管置入術，胸廓造口術，局部傷口探查術，腹膜灌洗，血管縫合術，簡單及複雜裂傷修補，肢部骨折支架固定，關節脫臼復位術及固定，環狀杓骨氣切術，胸骨切開術，心包膜切開術，心臟修補術，主動脈嵌合術與韌帶.....修補術。
7. Demonstrate ability to interpret radiographs on trauma patients, including chest, cervical, thoracic and lumbar spine, pelvis and extremity films.  
示範能判讀分析創傷患者的影像檢查，包含胸腔、頸部、胸椎及腰椎、骨盆與肢體等部位的影像檢查。
8. Discuss the importance of mechanism of injury in the evaluation and treatment of the trauma victim.  
研討有關創傷患者的傷害機制對評估與治療受傷患者的重要性。
9. Demonstrate ability to calculate the Glasgow Coma Score and discuss its role in the evaluation and treatment of head injured patients.  
示範能計算 Glasgow Coma Score(指數昏迷比分)和討論其頭部創傷患者的評估與治療上的重要性。
10. Demonstrate ability to use spine immobilization techniques in trauma victims.  
有能力在創傷患者身上使用脊椎板固定技巧。
11. Demonstrate ability to diagnose and manage trauma victims with extremity fractures, dislocations and subluxations.  
示範能診斷與處理外傷患者肢部骨折、脫臼與半脫臼傷害。
12. Demonstrate ability to manage soft tissue injuries including lacerations, avulsions and high-pressure injection injuries.  
示範能處理軟組織傷害，包含撕裂傷、扯拉撕脫傷及高壓性射入造成的傷害。
13. Discuss the diagnosis and management of compartment syndromes.  
討論腔室症候群的診斷與處理。
14. Discuss the diagnosis and management of urogenital injuries.  
討論泌尿道傷害的診斷與處理。
15. Demonstrate appropriate use of analgesics and sedatives in trauma patients.

- 示範在外傷患者身上能夠適當的使用止痛劑與鎮定劑。
16. Demonstrate appropriate use of antibiotics in trauma patients.  
示範能夠適當的使用抗生素在創傷患者身上。
  17. Demonstrate ability to direct a trauma team during complex resuscitations.  
在較複雜的急救過程中、有能力指導創傷小組的進行。
  18. Demonstrate ability to coordinate consultants involved in the care of multiple trauma patients.  
在處理多重創傷的患者時，各科間的照會需要有協調性。
  19. Demonstrate ability to use and interpret imaging modalities in the evaluation of trauma patients.  
有能力在創傷患者的評估上，使用與判讀創傷患者的影像檢查。
  20. Demonstrate ability to arrange appropriate consultation and disposition of trauma patients.  
有能力對創傷患者做適當的會診安排與處置後的去向。
  21. Demonstrate ability to direct the care of trauma victims in the pre-hospital setting.  
有能力處理創傷患者到院前的醫療照護。
  22. Discuss principle of disaster management and participate in disaster drills.  
研討關於災難處理的原則及參與做防災演習。
  23. Discuss the role of pre-hospital systems in the management of trauma patients.  
討論到院前救護系統在創傷患者治療上所扮演的角色問題。
  24. Discuss factors unique to the evaluation and management of pediatric trauma.  
討論小兒科外傷評估與處理的獨特性。
  25. Demonstrate ability to direct pediatric trauma resuscitations.  
有能力處理小兒科創傷的救護。
  26. Discuss factors unique to the evaluation and management of geriatric trauma.  
討論如何評估老年創傷處理的獨特性。
  27. Demonstrate ability to direct geriatric trauma resuscitations.  
有能力處理老人創傷的救護。
  28. Discuss factors unique to the evaluation and management of trauma in pregnancy.  
討論孕婦創傷的評估與處理的獨特性。
  29. Discuss the evaluation and management of spinal cord injuries.  
討論如何評估與處理脊椎創傷。
  30. Demonstrate ability to diagnose and manage tendon injuries.  
有能力診斷與處理肌腱創傷。
  31. Demonstrate ability to manage amputation injuries and discuss the potential for reimplantation.  
有能力處理截肢性創傷與討論再接合的可能性。
  32. Demonstrate the ability to manage the acutely burned patient, including minor and major injuries.  
有能力處理急性燒傷的病患，包含輕度與重大面積的燒害。
  33. Demonstrate the ability to diagnose and treat smoke inhalation.  
有能力診斷與處理吸入性煙霧傷。
  34. Discuss indications and procedures for transfer of an injured patient to a center.  
討論轉出外傷患者到創傷中心的適應性過程。
  35. Demonstrate the ability to assess and manage facial trauma.

- 有能力診斷與治理顏面外傷。
36. Demonstrate the ability to evaluate and manage anterior neck injuries.  
有能力評估與處理前頸部外傷。
37. Demonstrate the ability to assess and manage penetrating and blunt chest trauma.  
示範能評估與處理胸部鈍傷穿刺傷。
38. Demonstrate the ability to evaluate and manage blunt and penetrating abdominal trauma.  
有能力評估與處理腹部鈍傷及穿刺傷。
39. Demonstrate the ability to diagnose and treat pelvic fractures.  
有能力診斷與處理骨盆骨折。

## UROLOGY 泌尿科

### Goals:學習目標

1. Learn the relevant history and physical exam skills.  
學習相關病史與理學檢查的技術。
2. Learn the use of diagnostic imaging modalities available for the evaluation of urologic disorders.  
學習如何應用泌尿科的影像來診斷評估泌尿科疾病。
3. Learn the diagnosis and management of acute and chronic renal failure and the complications of renal dialysis.  
學習如何對急性與慢性腎衰竭及血液透析的併發症做診斷與處置。
4. Learn the diagnosis and management of urinary tract infections, including pyelonephritis and prostatitis.  
學習如何診斷及處理泌尿道感染，包括腎盂炎及前列腺炎。
5. Learn the diagnosis and management of renal calculi.  
學習腎臟結石的診斷與處理。
6. Learn the evaluation and management of renal and genitourinary trauma.  
學習腎臟與泌尿系統創傷的評估與處理。
7. Learn the diagnosis and management of disorders of the male genitalia.  
學習男性生殖系統疾病的診斷與處理。

### Objectives:學習內容

1. Discuss the pathophysiology, differential diagnosis and management of pre-renal, renal and post-renal failure.  
討論關於腎前、腎中及腎後腎臟功能衰退的生理病理學、鑑別診斷與處理。
2. Demonstrate ability to diagnose and manage the complications of chronic renal failure and dialysis, including electrolyte imbalance, dialysis disequilibriums, pericarditis, and subdural hematoma.  
能夠示範如何診斷與處理慢性腎衰竭與血液透析的問題，其中包含電解質不平衡、透析失衡、心包炎、與腦膜下出血
3. Discuss the indications for emergent dialysis.  
討論需要做緊急血液透析的適應性。
4. Discuss the indications and demonstrate ability to interpret intravenous pyelography urogenital US or helical CT.  
能說明做靜脈內腎盂攝影與泌尿道系統的超音波檢查與螺旋電腦斷層掃描的適應性，並有能力解釋影像判讀。
5. Discuss the indications for the use of urinary tract antibiotics.  
討論泌尿道感染需使用抗生素的適應性。
6. Discuss the indications and demonstrate ability to insert urethral and suprapubic catheters.  
討論插尿管及膀胱造瘻管的適應性且有能歷執行

7. Demonstrate ability to perform and interpret retrograde urethrograms and cystograms.  
能示範及執行分析逆行性尿道攝影與膀胱攝影。
8. Demonstrate ability to diagnose and treat infections of the urinary tract including pyelonephritis, cystitis, prostatitis and urethritis.  
有能力診斷與治療尿道感染，其中包含腎盂炎、膀胱癌、前列腺炎及尿道炎。
9. Demonstrate ability to diagnose and treat testicular disorders, including torsion, epididymitis, torsion of the appendix testis, and orchitis.  
示範能診斷及治療睪丸疾病，包含睪丸扭轉、附睪炎、附睪扭轉與睪丸炎。
10. Discuss the indications for doppler examination and testicular scanning.  
研討都卜勒檢驗的適應性與睪丸掃描。
11. Demonstrate ability to diagnose and treat disorders of the penis, including priapism, fracture of the penis, phimosis, paraphimosis, Fournier's gangrene, and balanitis.  
示範能診斷與治療陰莖疾患，包含陰莖持續勃起症、陰莖骨折、包莖、周邊包莖、Fournier's 壞疽、與龜頭炎。
12. Demonstrate ability to diagnose and treat urinary retention.  
有能力診斷與治療尿路不通的病患。
13. Demonstrate ability to diagnose and treat renal colic and nephrolithiasis.  
有能力診斷與治療腎臟絞痛與腎結石。
14. Demonstrate ability to evaluate and treat patients with blunt and penetrating urologic trauma.  
有能力評估與治療泌尿系統患者的鈍傷及穿刺傷。
15. Describe the indications for emergent urologic consultation.  
說明緊急照會泌尿科的適應性。
16. Describe the indications for routine urologic consultation.  
說明例行性泌尿科會診的適應性。



## WOUND MANAGEMENT 傷口處理

### Goals:學習目標

1. Understand the pathophysiology of wound healing.  
了解傷口癒合的病理生理學。
2. Learn effective wound evaluation and management skills.  
學習做有效的傷口評估與處置技巧。
3. Learn wound closure techniques appropriate for outpatient, traumatic wounds.  
學習門診外傷病患的外科傷口做適當的創傷包紮縫合技巧。
4. Learn appropriate methods for control of pain in patients with traumatic wounds.  
學習使用適當的疼痛控制方式使應用於外科傷患。
5. Understand quality assurance/risk management issues relating to wound care.  
了解與創傷照護相關的品質保證/風險管理等議題。
6. Learn effective documentation skills in patients with traumatic wounds.  
學習對創傷傷口的患者做有效的傷口確認技巧。
7. Learn appropriate disposition and referral skills.  
學習做適當病患處置後的去向與轉診技巧。