

# 台灣急診醫學臨床執業模式

(簡稱：急診醫學模式 EM MODEL)

## 台灣急診醫學臨床執業模式推動前言：

急診醫學身為一個新興的醫學專科，懷抱著提供台灣民眾更好的緊急醫療服務的理想，同時也面臨新興專科必然的挑戰，包括了民眾與其他醫學專科對急診醫學的「尚未」瞭解、更有著急診醫學對自身發展的不斷自我探索精進。發展過程中的許多困惑都來自於對急診醫學核心定義、專業內容、能力本質的不清。走在我們前面的美國急診醫學發展歷史，正訴說著我們現在的故事，站在巨人的肩膀上，能加速我們自身對急診醫學核心本質的掌握，我們也將是崛起的巨人，更堅定的守護國人的健康。

美國從 1975 年起 ACEP 與 SAEM 的前身便開始著力研究急診醫學的核心，並且不斷更新急診核心內容，歷經二十多年的發展，從專家意見的匯集、到全美大規模性的急診執業調查與急診就醫實證資料分析，終於在 2001 年公告了第一版的 Model of the Clinical Practice of Emergency Medicine 「急診醫學臨床執業模式」，簡稱 EM Model 「急診醫學模式」，其中明確的定義出急診病人的特殊性質與需求、急診特定的照護服務目標，據上述兩者而形成的急診看診邏輯、及急診醫學模式的三個構成要素：1.病人急迫性(Acuity)評估、2.醫師任務(Physician task)、3.醫學知識、病人照護及操作型技能(Procedural skills)清單。所以幾乎可以說「急診醫學模式」就好比是急診專科的立「科」憲法，其中即已隱含了急診所需的核心理念，也成為美國急專訓練與考試的核心文件。

2012 的年會是我們引進「急診醫學模式」的元年，2013 年學會成立了「急診核心能力里程推動小組」，由幾位熱心醫學教育和關心急診發展的急診醫師們著手翻譯美國「急診醫學臨床執業模式」，並調整為適合台灣需求的「台灣急診醫學臨床執業模式」，我們期盼能精煉急診核心本質、提升急診價值，同時讓社會與病人理解並享受更好的急診服務。

台灣急診醫學會急診核心能力里程推動小組 (TEMM)

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## 概論

EM Model 有三個構成要素：1)病人急迫性的評估；2)關於提供適當緊急醫療照護所必須執行工作內容的描述（醫師任務）；和 3)醫學知識、病人照護及操作型技能的清單。結合這三個構成要素而能描述急診醫學的臨床執業模式，並且能與其他專科的臨床執業模式進行區分。這個 EM Model 呈現了一個通過專科認證的急診醫師，臨床執業模式所需的必要基本資訊與技能。

病人來急診通常以症狀和癥候來表現，而不是一個已確知的疾病。因此，急診醫師照護病人的方式，是由辨識病人臨床表現中指向特定診斷或臆斷的形態作開始。「形態辨識」（Pattern Recognition）是急診醫學臨床執業的特點和基礎，引導著整個診察病人過程中，所進行的診斷性檢查檢驗與治療性處置。

急診醫學模式（EM Model）是設計來作為急診專科的核心文件，它提供了未來發展醫學院和住院醫師課程、專科醫師認證考試、專業繼續教育目標、研究議題、住院醫師訓練計劃審查要求與其他專科功能運作必要文件的基礎。ACGME 六大核心能力與急診醫學模式的結合，形成了一個評估醫師表現和課程設計的架構，可以進一步提升和改善勝任急診醫師的教育和培訓。

## 說明

急診醫學模式是急診醫學臨床執業三個面向的描述。這三個面向是「病人急迫性」、「醫師任務」和「醫學知識、病人照護及操作型技能的清單」。當提供病人照護時這三個面向會相互關連且同時被醫師整合與運用。急診醫師最初的診察方式取決於病人表現的急迫性。當評估病人時，醫師要完成一系列的任務來收集資訊。透過這個過程，醫師能夠從醫學知識、病人照護和操作型技能的清單中找出病人問題最可能的原因。經由這三個要素的持續運用，醫師能達到最有可能的診斷並為病人開始進行接續的治療計劃，因此 EM Model 的三個面向彼此相關，且同時應用於急診醫學的執業當中。

## 病人急迫性

在病人的診察過程中，醫師參考的架構基本上與病人狀況實際、明顯或潛在的急迫性相關。建立急迫性衡量基準，對於界定診療行動的背景情境、診察病人的優先順序和能成功處置病人的工作順序是必要的。在急診醫學模式中病人的急迫性包括危急、緊急和輕症（表一）。

表一：病人急迫性的定義

<b>Critical 危急</b>	<b>Emergent 緊急</b>	<b>Lower Acuity 輕症</b>
病人呈現一個危及生命的疾病或傷害的癥候或症狀，如果不立即開始採取處置措施以防止進一步的氣道、呼吸、血流動力學和/或神經系統的不穩定，則會有很高的機率造成死亡。	病人呈現的疾病或受傷的症狀或癥候，如果不趕快開始治療，很可能會導致病情惡化或併發症。	病人呈現的疾病或受傷的症狀或癥候，不太可能會造成病情快速惡化或產生併發症。

## 醫師任務

醫師任務包括急診醫學執業的各式活動和動態性工作(表二)。急診醫師在處理病人時要同時考慮很多因素，這些可能會改變病人處置的方向。例如同樣的主訴，當考慮病人是兒童或老人時處理的方式可能會有明顯的改變，這就是調節因素。醫師任務適用於所有年齡的病人。雖然沒有照護兒童或老年病人的獨立章節，但每一個任務應考慮到兒童和老年人的觀點。當一併考慮時這些任務與急診專科醫師的六大核心能力相關。

表二：醫師任務的定義

到院前照護	積極參與到院前照護；提供直接的病人照護或線上、離線的醫療指導，或與院前醫療服務提供者進行互動；從到院前照護中吸收相關資訊應用到該病人的評估與處置。
穩定緊急病況	進行初步評估，並採取適當的措施來穩定和治療病人。
做焦點式病史與理學檢查	有效的溝通以判讀和評估病人的症狀及病史；從病人的病史中確認相關的風險因素；提供焦點式評估；判讀病人的外觀、生命徵象和狀況；辨識出相關的理學檢查發現；具備實施檢查的技巧。
調節因素	辨識年齡、性別、種族、溝通障礙、社會經濟地位、潛在疾病和其他可能影響病人處理的因素。
專業與法律議題	理解和運用與病人處置有關的專業素養原則、倫理和法律概念。
診斷性檢查及檢驗	選擇並執行最適當的診斷性檢查及檢驗並判讀結果，如心電圖、急診超音波、血液檢驗。
診斷	形成鑑別診斷和根據病史、理學檢查、處置和檢查檢驗結果確立最可能的診斷。
治療性處置	執行操作型技能和非藥物性治療以及相關諮商。
藥物治療	選擇適當的藥物治療，認識藥物動力學特性，並預測藥物相互作用和不良反應。
觀察與再評估	反覆評估病人治療的效果，包括處理併發症和潛在的錯誤。監測、觀察、處置和維持一或多個不同就診階段病人的病情穩定。
會診	與醫師和其他專業人士合作，以幫助病人得到最佳的處置。
動向	安排病人住院、出院(包括後續追蹤計劃)、觀察或適當轉診，跟病人、家屬和相關的醫療團隊成員有效地溝通這些安排。
預防與衛教	應用流行病學資訊於有風險的病人；進行病人衛教；選擇適當的疾病和傷害預防技巧。
病歷記錄	以簡潔的方式溝通病人照護資訊，以促進照護品質和選擇適當診斷碼。
多重病人照護	為了提供病人最佳的服務，在急診判定輕重緩急並依序評估和處理多重病人，包括處理被中斷的任務與任務的轉換。
團隊管理	協調、教育或指導醫療團隊的成員；適度運用醫院資源；熟悉災難處理。

## 醫師任務與病人急迫性矩陣

這個矩陣由兩個主要的面向組成：醫師任務與病人急迫性（表三）。這個矩陣描述了所有可能的醫病互動，它取決於病人急迫性和診察病人過程中可能執行的任務。病人急迫性是要能判定輕重緩急與決定任務優先順序，以成功處理病人的基本要素。這個矩陣呈現急診醫師依據病人急迫性來調整任務以達到適當的病人照護。

表三：醫師任務與病人急迫性矩陣

醫師任務	病人急迫性		
	危急	緊急	輕症
到院前照護 穩定緊急病況 做焦點式病史與理學檢查 調節因素 專業與法律議題 診斷性檢查及檢驗 診斷 治療性處置 藥物治療 觀察與再評估 會診 動向 預防與衛教 病歷記錄 多重病人照護 團隊管理			

以下是一個簡要的例子，病人的急迫性和醫師的任務如何應用於有同樣主訴胸痛的患者：

1. 一個 55 歲的男性有高血壓、糖尿病病史，正捂著他的胸口，主訴壓迫性胸痛、冒冷汗和收縮壓 60 毫米汞柱。

急迫性：危急

代表意義：需要立即介入處理和穩定生命功能，沒有立即處置很可能會死亡。

2. 一個 74 歲的女性有心絞痛病史，主訴三到五分鐘典型心絞痛的胸部悶痛。她生命徵象穩定且硝化甘油可緩解胸痛。

急迫性：緊急

代表意義：必須趕快開始監測、打上點滴、評估和治療。如果不及時治療可能會造成病情惡化及併發症。

3. 一個 12 歲的女性，非創傷性的尖銳胸痛持續數天，身體的運動會加劇疼痛。

急迫性：輕症

代表意義：病人的症狀應適當的處理。然而，發展為較重大的併發症是不太可能的。

## **醫學知識、病人照護和操作型技能的清單**

這部分的內容是由急診核心能力里程推動小組基於：1)發生的頻率；2)病人臨床表現的危急特性；和 3)急診執業的其它要素這三個因素來決定。同時考慮台灣醫療制度與現況並以美國 EM model 為基礎翻譯並修訂而成。內容包含急診醫學臨床執業重要的診斷及治療處置，以及其他急診執業所需的要素及核心能力。依照 ACGME 六大核心能力之架構來編排。目的是要代表急診病人常見與嚴重的情況，以及提供安全、有效的病人照護必備之核心知識與技能，而非急診各種情況之全面性清單。

表四：醫學知識，病人照護和操作型技能

		Critical	Emergent	Lower Acuity
<b>1.1</b>	<b>General</b>			
1.1.1	Altered mental status	X	X	
1.1.2	Anxiety			X
1.1.3	Apnea	X		
1.1.4	Ataxia		X	X
1.1.5	Back pain	X	X	X
1.1.6	Bleeding	X	X	X
1.1.7	Coma	X		
1.1.8	Confusion		X	
1.1.9	Crying/Fussiness		X	X
1.1.10	Cyanosis	X		
1.1.11	Decreased level of consciousness	X	X	
1.1.12	Dehydration	X	X	
1.1.13	Dizziness		X	X
1.1.14	Edema		X	X
1.1.15	Failure to thrive		X	X
1.1.16	Fatigue		X	X
1.1.17	Feeding problems			X
1.1.18	Fever	X	X	X
1.1.19	Hypotension	X	X	
1.1.20	Jaundice		X	
1.1.21	Joint pain/Swelling		X	X
1.1.22	Limp		X	X
1.1.23	Lymphadenopathy			X
1.1.24	Malaise		X	X
1.1.25	Multiple trauma	X	X	
1.1.26	Needle stick		X	X
1.1.27	Pain	X	X	X
1.1.28	Paralysis	X	X	
1.1.29	Paresthesia/Dysesthesia		X	X
1.1.30	Poisoning	X	X	X
1.1.31	Pruritus		X	X
1.1.32	Rash	X	X	X
1.1.33	Shock	X		
1.1.34	SIDS	X		
1.1.35	Sleeping problems			X
1.1.36	Syncope	X	X	X
1.1.37	Tremor		X	X
1.1.38	Weakness		X	X

1.1.39	Weight loss		X	X
1.1.40	Mechanical and In-dwelling Devices, Complications	X	X	X
<b>1.2 Abdominal</b>				
1.2.1	Abnormal vaginal bleeding	X	X	X
1.2.2	Anuria		X	
1.2.3	Ascites		X	X
1.2.4	Colic		X	X
1.2.5	Constipation			X
1.2.6	Cramps		X	X
1.2.7	Diarrhea		X	X
1.2.8	Dysmenorrhea			X
1.2.9	Dysuria			X
1.2.10	Hematemesis	X	X	
1.2.11	Hematochezia	X	X	X
1.2.12	Hematuria		X	X
1.2.13	Nausea/Vomiting		X	X
1.2.14	Pain	X	X	X
1.2.15	Pelvic pain	X	X	X
1.2.16	Peritonitis	X	X	
1.2.17	Rectal bleeding	X	X	X
1.2.18	Rectal pain		X	X
1.2.19	Urinary incontinence			X
1.2.20	Urinary retention		X	
<b>1.3 Chest</b>				
1.3.1	Chest pain	X	X	X
1.3.2	Cough		X	X
1.3.3	Dyspnea	X	X	
1.3.4	Hemoptysis	X	X	
1.3.5	Hiccup			X
1.3.6	Palpitations	X	X	X
1.3.7	Shortness of breath	X	X	
1.3.8	Tachycardia	X	X	
1.3.9	Wheezing	X	X	
<b>1.4 Head and Neck</b>				
1.4.1	Congestion			X
1.4.2	Diplopia		X	
1.4.3	Dysphagia		X	X
1.4.4	Eye pain		X	X
1.4.5	Headache	X	X	X
1.4.6	Loss of hearing			X
1.4.7	Loss of vision		X	

1.4.8	Rhinorrhea			X
1.4.9	Sore throat		X	X
1.4.10	Stridor	X	X	
1.4.11	Tinnitus			X
1.4.12	Vertigo		X	X



## 2.0 ABDOMINAL AND GASTROINTESTINAL DISORDERS

	Critical	Emergent	Lower Acuity
<b>2.1 Abdominal Wall</b>			
2.1.1 Hernias		X	X
<b>2.2 Esophagus</b>			
2.2.1 Infectious disorders			
2.2.1.1 Candida		X	X
2.2.2 Inflammatory disorders			
2.2.2.1 Esophagitis		X	X
2.2.2.2 Gastroesophageal reflux (GERD)			X
2.2.2.3 Toxic effects of caustic			
2.2.2.3.1 Acid	X	X	
2.2.2.3.2 Alkali	X	X	
2.2.3 Motor abnormalities			
2.2.3.1 Spasms			X
2.2.4 Structural disorders			
2.2.4.1 Boerhaave's syndrome	X	X	
2.2.4.2 Diverticula		X	X
2.2.4.3 Foreign body		X	
2.2.4.4 Hernias		X	X
2.2.4.5 Mallory-Weiss syndrome	X	X	
2.2.4.6 Stricture and stenosis		X	X
2.2.4.7 Tracheoesophageal fistula	X	X	
2.2.4.8 Varices	X	X	
2.2.5 Tumors		X	X
<b>2.3 Liver</b>			
2.3.1 Cirrhosis		X	X
2.3.1.1 Alcoholic		X	X
2.3.1.2 Biliary obstructive		X	
2.3.1.3 Drug-induced		X	X
2.3.1.4 Viral		X	X
2.3.2 Hepatorenal failure	X	X	
2.3.3 Infectious disorders		X	X
2.3.3.1 Abscess		X	
2.3.3.2 Hepatitis			
2.3.3.2.1 Acute		X	X
2.3.3.2.2 Chronic			X
2.3.4 Tumors		X	X
<b>2.4 Gall Bladder and Biliary Tract</b>			
2.4.1 Cholangitis	X	X	
2.4.2 Cholecystitis		X	
2.4.3 Cholelithiasis/Choledocholithiasis		X	X

2.4.4	Tumors		X	X
<b>2.5</b>	<b>Pancreas</b>			
2.5.1	Pancreatitis	X	X	
2.5.2	Tumors		X	X
<b>2.6</b>	<b>Peritoneum</b>			
2.6.1	Spontaneous bacterial peritonitis	X	X	
<b>2.7</b>	<b>Stomach</b>			
2.7.1	Infectious disorders			X
2.7.2	Inflammatory disorders			
2.7.2.1	Gastritis		X	X
2.7.3	Peptic ulcer disease		X	X
2.7.3.1	Hemorrhage	X	X	
2.7.3.2	Perforation	X	X	
2.7.4	Structural disorders			
2.7.4.1	Congenital hypertrophic pyloric stenosis		X	
2.7.4.2	Foreign body		X	X
2.7.5	Tumors		X	X
<b>2.8</b>	<b>Small Bowel</b>			
2.8.1	Infectious disorders		X	X
2.8.2	Inflammatory disorders			
2.8.2.1	Regional enteritis/Crohn's disease		X	X
2.8.3	Motor abnormalities			
2.8.3.1	Obstruction		X	
2.8.3.2	Paralytic ileus		X	
2.8.4	Structural disorders			
2.8.4.1	Aortoenteric fistula	X		
2.8.4.2	Congenital anomalies		X	X
2.8.4.3	Intestinal malabsorption		X	X
2.8.4.4	Meckel's diverticulum		X	X
2.8.5	Tumors		X	X
2.8.6	Vascular insufficiency	X	X	
<b>2.9</b>	<b>Large Bowel</b>			
2.9.1	Infectious disorders			
2.9.1.1	Antibiotic-associated		X	
2.9.1.2	Bacterial		X	X
2.9.1.3	Parasitic		X	X
2.9.1.4	Viral		X	X
2.9.2	Inflammatory disorders			
2.9.2.1	Appendicitis		X	
2.9.2.2	Necrotizing enterocolitis (NEC)	X	X	
2.9.2.3	Radiation colitis		X	

2.9.2.4 Ulcerative colitis		X	X
2.9.3 Motor abnormalities			
2.9.3.1 Hirschsprung's disease		X	X
2.9.3.2 Irritable bowel			X
2.9.3.3 Obstruction		X	
2.9.4 Structural disorders			
2.9.4.1 Congenital anomalies		X	X
2.9.4.2 Diverticula		X	X
2.9.4.3 Intussusception	X	X	
2.9.4.4 Volvulus	X	X	
2.9.5 Tumors		X	X
<b>2.10 Rectum and Anus</b>			
2.10.1 Infectious disorders			
2.10.1.1 Perianal/Anal abscess		X	X
2.10.1.2 Perirectal abscess		X	
2.10.1.3 Pilonidal cyst and abscess		X	X
2.10.2 Inflammatory disorders			
2.10.2.1 Proctitis			X
2.10.3 Structural disorders			
2.10.3.1 Anal fissure			X
2.10.3.2 Anal fistula		X	X
2.10.3.3 Congenital anomalies			X
2.10.3.4 Foreign body		X	X
2.10.3.5 Hemorrhoids			X
2.10.3.6 Rectal prolapse		X	
2.10.4 Tumors		X	X
<b>2.11 Spleen</b>	X	X	X

### 3.0 CARDIOVASCULAR DISORDERS

	Critical	Emergent	Lower Acuity
<b>3.1 Cardiopulmonary Arrest</b>	X		
3.1.1 SIDS			
<b>3.2 Congenital Abnormalities of the Cardiovascular System</b>	X	X	X
<b>3.3 Disorders of Circulation</b>			
3.3.1 Arterial			
3.3.1.1 Aneurysm	X	X	X
3.3.1.2 Aortic dissection	X		
3.3.1.3 Thromboembolism	X	X	
3.3.2 Venous			
3.3.2.1 Thromboembolism	X	X	
<b>3.4 Disturbances of Cardiac Rhythm</b>			
3.4.1 Cardiac dysrhythmias	X	X	X
3.4.1.1 Ventricular	X	X	
3.4.1.2 Supraventricular	X	X	X
3.4.2 Conduction disorders	X	X	X
<b>3.5 Diseases of the Myocardium, Acquired</b>			
3.5.1 Cardiac failure	X	X	
3.5.1.1 Cor pulmonale	X	X	
3.5.1.2 High output	X	X	
3.5.1.3 Low output	X	X	
3.5.2 Cardiomyopathy	X	X	X
3.5.2.1 Hypertrophic	X	X	X
3.5.2.2 Dilated	X	X	X
3.5.2.3 Stress-induced	X	X	X
3.5.3 Congestive heart failure	X	X	
3.5.4 Coronary syndromes	X	X	
3.5.5 Ischemic heart disease	X	X	
3.5.6 Myocardial infarction	X	X	
3.5.7 Myocarditis	X	X	X
3.5.8 Ventricular aneurysm	X	X	X
<b>3.6 Diseases of the Pericardium</b>			
3.6.1 Pericardial tamponade	X	X	
3.6.2 Pericarditis		X	X
<b>3.7 Endocarditis</b>	X	X	
<b>3.8 Hypertension</b>	X	X	X
<b>3.9 Tumors</b>	X	X	

**3.10 Valvular Disorders**

X

X

X

## 4.0 CUTANEOUS DISORDERS

	Critical	Emergent	Lower Acuity
<b>4.1 Cancers of the Skin</b>			
4.1.1 Basal cell			X
4.1.2 Kaposi's sarcoma			X
4.1.3 Melanoma			X
4.1.4 Squamous cell			X
<b>4.2 Decubitus Ulcer</b>		X	X
<b>4.3 Dermatitis</b>			
4.3.1 Atopic			X
4.3.2 Contact			X
4.3.3 Eczema			X
4.3.4 Psoriasis			X
4.3.5 Seborrhea			X
<b>4.4 Infections</b>			
4.4.1 Bacterial			
4.4.1.1 Abscess		X	X
4.4.1.2 Cellulitis		X	X
4.4.1.3 Erysipelas		X	
4.4.1.4 Impetigo			X
4.4.1.5 Necrotizing infection	X	X	
4.4.2 Fungal			
4.4.2.1 Candida			X
4.4.2.2 Tinea			X
4.4.3 Parasitic			
4.4.3.1 Pediculosis infestation			X
4.4.3.2 Scabies			X
4.4.4 Viral			
4.4.4.1 Aphthous ulcers			X
4.4.4.2 Erythema infectiosum			X
4.4.4.3 Herpes simplex			X
4.4.4.4 Herpes zoster		X	X
4.4.4.5 Human papillomavirus (HPV)			X
4.4.4.6 Molluscum contagiosum			X
4.4.4.7 Warts			X
<b>4.5 Maculopapular Lesions</b>			
4.5.1 Erythema multiforme		X	X
4.5.2 Erythema nodosum			X
4.5.3 Henoch-Schönlein purpura (HSP)		X	
4.5.4 Pityriasis rosea			X

4.5.5	Purpura		X	X
4.5.6	Urticaria		X	X
<b>4.6 Papular/Nodular Lesions</b>				
4.6.1	Hemangioma/Lymphangioma			X
4.6.2	Lipoma			X
4.6.3	Sebaceous cyst			X
<b>4.7 Vesicular/Bullous Lesions</b>				
4.7.1	Pemphigus		X	
4.7.2	Staphylococcal scalded skin syndrome	X	X	
4.7.3	Stevens-Johnson syndrome	X	X	
4.7.4	Toxic epidermal necrolysis	X	X	
4.7.5	Bullous pemphigoid		X	X

## 5.0 ENDOCRINE, METABOLIC, AND NUTRITIONAL DISORDERS

	Critical	Emergent	Lower Acuity
<b>5.1 Acid-base Disturbances</b>			
5.1.1 Metabolic or respiratory			
5.1.1.1 Acidosis	X	X	
5.1.1.2 Alkalosis	X	X	X
5.1.2 Mixed acid-base balance disorder	X	X	
<b>5.2 Adrenal Disease</b>			
5.2.1 Corticoadrenal insufficiency	X	X	
5.2.2 Cushing's syndrome		X	X
<b>5.3 Fluid and Electrolyte Disturbances</b>			
5.3.1 Calcium metabolism	X	X	X
5.3.2 Fluid overload/Volume depletion	X	X	
5.3.3 Potassium metabolism	X	X	X
5.3.4 Sodium metabolism	X	X	X
5.3.5 Magnesium metabolism		X	X
5.3.6 Phosphorus metabolism		X	X
<b>5.4 Glucose Metabolism</b>			
5.4.1 Diabetes mellitus			
5.4.1.1 Type I	X	X	X
5.4.1.2 Type II		X	X
5.4.1.3 Complications in glucose metabolism			
5.4.1.3.1 Diabetic ketoacidosis (DKA)	X	X	
5.4.1.3.2 Hyperglycemia		X	X
5.4.1.3.3 Hyperosmolar coma	X	X	
5.4.1.3.4 Hypoglycemia	X	X	
5.4.1.3.5 Systemic		X	X
<b>5.5 Nutritional Disorders</b>			
5.5.1 Vitamin deficiencies			X
5.5.2 Wernicke-Korsakoff syndrome		X	
<b>5.6 Parathyroid Disease</b>		X	X
<b>5.7 Pituitary Disorders</b>		X	X
5.7.1 Panhypopituitarism		X	
<b>5.8 Thyroid Disorders</b>			
5.8.1 Hyperthyroidism	X	X	X
5.8.2 Hypothyroidism	X	X	X



5.8.3	Thyroiditis	X	X
<b>5.9</b>	<b>Tumors of Endocrine Glands</b>		
5.9.1	Adrenal	X	X
5.9.2	Pituitary	X	X
5.9.3	Thyroid	X	X

## 6.0 ENVIRONMENTAL DISORDERS

	Critical	Emergent	Lower Acuity
<b>6.1 Bites and Envenomation</b>			
6.1.1 Arthropods		X	X
6.1.2 Mammals		X	X
6.1.3 Marine organisms	X	X	X
6.1.4 Snakes	X	X	X
<b>6.2 Dysbarism</b>			
6.2.1 Air embolism	X	X	
6.2.2 Barotrauma	X	X	X
6.2.3 Decompression syndrome	X	X	
<b>6.3 Electrical Injury</b>	X	X	X
6.3.1 Lightning	X	X	
<b>6.4 High-altitude Illness</b>			
6.4.1 Acute mountain sickness		X	X
6.4.2 Barotrauma of ascent		X	X
6.4.3 High-altitude cerebral edema	X	X	
6.4.4 High-altitude pulmonary edema	X	X	
<b>6.5 Submersion Incidents</b>			
6.5.1 Cold water immersion	X	X	
6.5.2 Near drowning	X	X	
<b>6.6 Temperature-related Illness</b>			
6.6.1 Heat			
6.6.1.1 Heat exhaustion		X	X
6.6.1.2 Heat stroke	X		
6.6.2 Cold			
6.6.2.1 Frostbite		X	X
6.6.2.2 Hypothermia	X	X	
<b>6.7 Radiation Emergencies</b>	X	X	X

## 7.0 HEAD, EAR, EYE, NOSE, THROAT DISORDERS

		Critical	Emergent	Lower Acuity
<b>7.1 Ear</b>				
7.1.1	Foreign body		X	X
	7.1.1.1 Impacted cerumen			X
7.1.2	Labyrinthitis			X
7.1.3	Mastoiditis		X	
7.1.4	Ménière's disease			X
7.1.5	Otitis externa			X
	7.1.5.1 Infective			X
	7.1.5.1.1 Malignant		X	
7.1.6	Otitis media		X	X
7.1.7	Perforated tympanic membrane			X
<b>7.2 Eye</b>				
7.2.1	External eye			
	7.2.1.1 Blepharitis			X
	7.2.1.2 Burn confined to eye and adnexa	X		
	7.2.1.3 Conjunctivitis			X
	7.2.1.4 Corneal abrasions		X	X
	7.2.1.5 Dacryocystitis		X	X
	7.2.1.6 Disorders of lacrimal system			X
	7.2.1.7 Foreign body		X	X
	7.2.1.8 Inflammation of the eyelids			X
	7.2.1.8.1 Chalazion			X
	7.2.1.8.2 Hordeolum			X
	7.2.1.9 Keratitis		X	X
7.2.2	Anterior pole			
	7.2.2.1 Glaucoma		X	X
	7.2.2.2 Hyphema		X	X
	7.2.2.3 Iritis		X	X
	7.2.2.4 Hypopyon		X	
7.2.3	Posterior pole			
	7.2.3.1 Choroiditis/Chorioretinitis		X	
	7.2.3.2 Optic neuritis		X	
	7.2.3.3 Papilledema	X	X	
	7.2.3.4 Retinal detachments and defects		X	
	7.2.3.5 Retinal vascular occlusion		X	
7.2.4	Orbit			
	7.2.4.1 Cellulitis			
	7.2.4.1.1 Preseptal		X	
	7.2.4.1.2 Postseptal		X	
	7.2.4.2 Purulent endophthalmitis		X	

<b>7.3</b>	<b>Cavernous Sinus Thrombosis</b>	X	X	
<b>7.4</b>	<b>Nose</b>			
7.4.1	Epistaxis	X	X	X
7.4.2	Foreign body		X	X
7.4.3	Rhinitis			X
7.4.4	Sinusitis			X
<b>7.5</b>	<b>Oropharynx/Throat</b>			
7.5.1	Dentalgia			X
7.5.2	Diseases of the oral soft tissue			
7.5.2.1	Ludwig's angina	X	X	
7.5.2.2	Stomatitis			X
7.5.3	Diseases of the salivary glands			
7.5.3.1	Sialolithiasis		X	X
7.5.3.2	Suppurative parotitis		X	
7.5.4	Foreign body	X	X	
7.5.5	Gingival and periodontal disorders			
7.5.5.1	Gingivostomatitis			X
7.5.6	Larynx/Trachea			
7.5.6.1	Epiglottitis	X	X	
7.5.6.2	Laryngitis			X
7.5.6.3	Tracheitis		X	X
7.5.7	Oral candidiasis			X
7.5.8	Periapical abscess		X	X
7.5.9	Peritonsillar abscess		X	
7.5.10	Pharyngitis/Tonsillitis			X
7.5.11	Retropharyngeal abscess	X	X	
7.5.12	Temporomandibular joint disorders			X
<b>7.6</b>	<b>Tumors</b>		X	X

## 8.0 HEMATOLOGIC DISORDERS

	Critical	Emergent	Lower Acuity
<b>8.1 Blood Transfusion</b>			
8.1.1 Complications	X	X	
<b>8.2 Hemostatic Disorders</b>			
8.2.1 Coagulation defects	X	X	X
8.2.1.1 Acquired	X	X	X
8.2.1.2 Hemophilias	X	X	X
8.2.2 Disseminated intravascular coagulation	X		
8.2.3 Platelet disorders	X	X	X
8.2.3.1 Thrombocytopenia		X	X
<b>8.3 Lymphomas</b>		X	X
<b>8.4 Pancytopenia</b>	X	X	
<b>8.5 Red Blood Cell Disorders</b>			
8.5.1 Anemias			
8.5.1.1 Aplastic	X	X	
8.5.1.2 Hemoglobinopathies		X	X
8.5.1.3 Hemolytic		X	
8.5.1.4 Hypochromic			
8.5.1.4.1 Iron deficiency		X	X
8.5.1.5 Megaloblastic		X	X
8.5.2 Polycythemia		X	X
8.5.3 Methemoglobinemia	X	X	
<b>8.6 White Blood Cell Disorders</b>			
8.6.1 Leukemia		X	X
8.6.2 Multiple myeloma		X	X
8.6.3 Leukopenia		X	X

## 9.0 IMMUNE SYSTEM DISORDERS

	Critical	Emergent	Lower Acuity
<b>9.1 Collagen Vascular Disease</b>			
9.1.1 Raynaud's disease			X
9.1.2 Reiter's syndrome		X	X
9.1.3 Rheumatoid arthritis		X	X
9.1.4 Scleroderma		X	X
9.1.5 Systemic lupus erythematosus		X	X
9.1.6 Vasculitis		X	X
<b>9.2 Hypersensitivity</b>			
9.2.1 Allergic reaction		X	X
9.2.2 Anaphylaxis	X		
9.2.3 Angioedema	X	X	
9.2.4 Drug allergies	X	X	X
<b>9.3 Transplant-related Problems</b>	X	X	X
9.3.1 Immunosuppression		X	X
9.3.2 Rejection	X	X	
<b>9.4 Immune Complex Disorders</b>		X	
9.4.1 Kawasaki syndrome		X	X
9.4.2 Rheumatic fever		X	X
9.4.3 Sarcoidosis		X	X
9.4.4 Post-streptococcal glomerulonephritis		X	

## 10.0 SYSTEMIC INFECTIOUS DISORDERS

	Critical	Emergent	Lower Acuity
<b>10.1 Bacterial</b>			
10.1.1 Bacterial food poisoning		X	X
10.1.1.1 Botulism	X	X	
10.1.2 Chlamydia		X	X
10.1.3 Gonococcus		X	X
10.1.4 Meningococcus	X	X	
10.1.5 Mycobacterium			
10.1.5.1 Atypical mycobacteria		X	X
10.1.5.2 Tuberculosis		X	X
10.1.6 Other bacterial diseases	X	X	
10.1.6.1 Gas gangrene	X	X	
10.1.7 Sepsis/Bacteremia	X	X	
10.1.7.1 Shock	X		
10.1.7.2 Systemic inflammatory response syndrome (SIRS)	X	X	
10.1.7.3 Toxic shock syndrome	X	X	
10.1.8 Spirochetes			
10.1.8.1 Syphilis		X	X
10.1.8.2 Leptospira		X	X
10.1.9 Tetanus	X	X	
<b>10.2 Biological Warfare Agents</b>	X	X	
<b>10.3 Fungal Infections</b>		X	X
<b>10.4 Protozoan/Parasites</b>			
10.4.1 Malaria		X	
10.4.2 Toxoplasmosis		X	X
<b>10.5 Tick-Borne</b>			
10.5.1 Scrub typhus		X	
<b>10.6 Viral</b>		X	X
10.6.1 Infectious mononucleosis		X	X
10.6.2 Influenza/Parainfluenza		X	X
10.6.3 Hantavirus	X	X	
10.6.4 Herpes simplex		X	X
10.6.5 Herpes zoster/Varicella		X	X
10.6.6 HIV/AIDS	X	X	X
10.6.7 Rabies	X		
10.6.8 Roseola			X
10.6.9 Rubella			X

10.6.10 Dengue fever	X	X
10.6.11 Corona virus /SARS	X	X
<b>10.7Emerging Infections, Pandemics, and Drug Resistance</b>	X	X



## 11.0 MUSCULOSKELETAL DISORDERS (NONTRAUMATIC)

	Critical	Emergent	Lower Acuity
<b>11.1 Bony Abnormalities</b>			
11.1.1 Aseptic necrosis of hip		X	X
11.1.2 Osteomyelitis		X	
11.1.3 Tumors		X	X
<b>11.2 Disorders of the Spine</b>			
11.2.1 Disc disorders		X	X
11.2.2 Inflammatory spondylopathies		X	X
11.2.3 Low back pain			
11.2.3.1 Cauda equina syndrome	X	X	
11.2.3.2 Sacroiliitis			X
11.2.3.3 Sprains/Strains			X
<b>11.3 Joint Abnormalities</b>			
11.3.1 Arthritis			
11.3.1.1 Septic		X	
11.3.1.2 Crystal arthropathies		X	X
11.3.1.3 Rheumatoid			X
11.3.1.4 Juvenile			X
11.3.1.5 Osteoarthritis			X
11.3.2 Congenital dislocation of the hip		X	X
11.3.3 Slipped capital femoral epiphysis		X	
<b>11.4 Muscle Abnormalities</b>			
11.4.1 Myalgia/Myositis			X
11.4.2 Rhabdomyolysis	X	X	
<b>11.5 Overuse Syndromes</b>			
11.5.1 Bursitis			X
11.5.2 Muscle strains			X
11.5.3 Peripheral nerve syndrome			X
11.5.3.1 Carpal tunnel syndrome			X
11.5.4 Tendonitis			X
<b>11.6 Soft Tissue Infections</b>			
11.6.1 Fasciitis		X	
11.6.2 Felon		X	
11.6.3 Gangrene	X	X	
11.6.4 Paronychia		X	X
11.6.5 Synovitis/Tenosynovitis		X	X

## 12.0 NERVOUS SYSTEM DISORDERS

	Critical	Emergent	Lower Acuity
<b>12.1 Cranial Nerve Disorders</b>			X
12.1.1 Idiopathic facial nerve paralysis (Bell's palsy)			X
12.1.2 Trigeminal neuralgia			X
<b>12.2 Demyelinating Disorders</b>	X	X	
12.2.1 Multiple sclerosis		X	X
<b>12.3 Headache</b>	X	X	X
12.3.1 Muscle contraction			X
12.3.2 Vascular		X	X
<b>12.4 Hydrocephalus</b>		X	X
12.4.1 Normal pressure		X	X
12.4.2 VP shunt		X	
<b>12.5 Infections/Inflammatory Disorders</b>			
12.5.1 Encephalitis	X	X	
12.5.2 Intracranial and intraspinal abscess	X	X	
12.5.3 Meningitis			
12.5.3.1 Bacterial	X	X	
12.5.3.2 Viral		X	X
12.5.3.3 Fungal			
12.5.3.3.1 Cryptococcal meningitis		X	X
12.5.4 Myelitis		X	
12.5.5 Neuralgia/Neuritis			X
<b>12.6 Movement Disorders</b>		X	X
12.6.1 Dystonic reaction		X	X
<b>12.7 Neuromuscular Disorders</b>			
12.7.1 Guillain-Barré syndrome	X	X	
12.7.2 Myasthenia gravis	X	X	X
12.7.3 Peripheral neuropathy		X	
<b>12.8 Other Conditions of the Brain</b>			
12.8.1 Dementia			X
12.8.2 Parkinson's disease			X
12.8.3 Pseudotumor cerebri		X	X
<b>12.9 Seizure Disorders</b>	X	X	X
12.9.1 Febrile		X	X
12.9.2 Neonatal		X	

12.9.3	Status epilepticus	X		
12.10	<b>Spinal Cord Compression</b>		X	X
12.11	<b>Stroke (Cerebral Vascular Events)</b>			
12.11.1	Hemorrhagic			
12.11.1.1	Intracerebral	X	X	
12.11.1.2	Subarachnoid	X	X	
12.11.2	Ischemic			
12.11.2.1	Embolic	X	X	
12.11.2.2	Thrombotic	X	X	
12.12	<b>Transient Cerebral Ischemia</b>		X	X
12.13	<b>Tumors</b>		X	X

## 13.0 OBSTETRICS AND GYNECOLOGY

	Critical	Emergent	Lower Acuity
<b>13.1 Female Genital Tract</b>			
13.1.1 Cervix			
13.1.1.1 Cervicitis and endocervicitis		X	X
13.1.1.2 Tumors			X
13.1.2 Infectious disorders			
13.1.2.1 Pelvic inflammatory disease		X	
13.1.2.1.1 Fitz-Hugh-Curtis syndrome		X	
13.1.2.1.2 Tuboovarian abscess		X	
13.1.3 Lesions			
13.1.3.1 Herpes simplex			X
13.1.3.2 Human papillomavirus (HPV)			X
13.1.4 Ovary			
13.1.4.1 Cyst			X
13.1.4.2 Torsion		X	
13.1.4.3 Tumors		X	X
13.1.5 Uterus			
13.1.5.1 Dysfunctional bleeding		X	X
13.1.5.2 Endometriosis			X
13.1.5.3 Prolapse			X
13.1.5.4 Tumors		X	X
13.1.5.4.1 Gestational trophoblastic disease		X	
13.1.5.4.2 Leiomyoma			X
13.1.6 Vagina and vulva			
13.1.6.1 Bartholin's abscess		X	
13.1.6.2 Foreign body		X	X
13.1.6.3 Vaginitis/Vulvovaginitis			X
<b>13.2 Normal Pregnancy</b>			X
<b>13.3 Complications of Pregnancy</b>			
13.3.1 Abortion		X	
13.3.2 Ectopic pregnancy	X	X	
13.3.3 Hemolysis, elevated liver enzymes, low platelets (HELLP) syndrome	X	X	
13.3.4 Hemorrhage, antepartum			
13.3.4.1 Abruptio placentae	X	X	
13.3.4.2 Placenta previa	X	X	
13.3.5 Hyperemesis gravidarum		X	X
13.3.6 Pregnancy-induced hypertension		X	X
13.3.6.1 Eclampsia	X	X	

13.3.6.2	Preeclampsia		X	
13.3.7	Infections		X	
13.3.8	Rh isoimmunization		X	
13.3.9	First trimester bleeding	X	X	X
<b>13.4</b>	<b>High-risk Pregnancy</b>	X	X	
<b>13.5</b>	<b>Normal Labor and Delivery</b>		X	X
<b>13.6</b>	<b>Complications of Labor</b>			
13.6.1	Fetal distress	X		
13.6.2	Premature labor		X	
13.6.3	Premature rupture of membranes		X	
13.6.4	Rupture of uterus	X		
<b>13.7</b>	<b>Complications of Delivery</b>			
13.7.1	Malposition of fetus	X	X	
13.7.2	Nuchal cord	X		
13.7.3	Prolapse of cord	X		
<b>13.8</b>	<b>Postpartum Complications</b>			
13.8.1	Endometritis		X	
13.8.2	Hemorrhage	X	X	
13.8.3	Mastitis		X	X

## 14.0 PSYCHOBEHAVIORAL DISORDERS

	Critical	Emergent	Lower Acuity
<b>14.1 Addictive Behavior</b>			
14.1.1			X
14.1.2			X
14.1.3		X	X
14.1.4			X
<b>14.2 Mood Disorders and Thought Disorders</b>			
14.2.1	X	X	
14.2.2		X	X
14.2.3		X	X
14.2.3.1	X	X	
14.2.4			X
14.2.5		X	X
<b>14.3 Factitious Disorders</b>			
14.3.1			X
14.3.2		X	X
<b>14.4 Neurotic Disorders</b>			
14.4.1			X
14.4.2			X
14.4.3			X
14.4.4			X
<b>14.5 Organic Psychoses</b>			
14.5.1			X
14.5.1.1		X	X
14.5.1.2		X	X
14.5.2		X	
14.5.3			X
14.5.4			
14.5.4.1	X	X	X
14.5.4.2		X	X
14.5.4.3	X	X	X
14.5.4.4		X	
14.5.4.5	X	X	X
14.5.4.6	X	X	X
<b>14.6 Patterns of Violence/Abuse/Neglect</b>			
14.6.1			
14.6.1.1		X	

14.6.2	Homicidal Risk	X	X
14.6.3	Sexual assault		X
14.6.4	Staff/Patient safety		X
<b>14.7 Personality Disorders</b>			X
<b>14.8 Psychosomatic Disorders</b>			
14.8.1	Hypochondriasis		X
14.8.2	Hysteria/Conversion		X

## 15.0 RENAL AND UROGENITAL DISORDERS

	Critical	Emergent	Lower Acuity
<b>15.1 Acute and Chronic Renal Failure</b>	X	X	X
<b>15.2 Complications of Renal Dialysis</b>	X	X	
<b>15.3 Glomerular Disorders</b>			
15.3.1 Glomerulonephritis		X	X
15.3.2 Nephrotic syndrome		X	X
<b>15.4 Infection</b>			
15.4.1 Cystitis			X
15.4.2 Pyelonephritis		X	
15.4.3 Urinary tract infection (UTI)			X
<b>15.5 Male Genital Tract</b>			
15.5.1 Genital lesions			X
15.5.2 Hernias		X	X
15.5.3 Inflammation/Infection			
15.5.3.1 Balanitis/Balanoposthitis		X	X
15.5.3.2 Epididymitis/Orchitis		X	X
15.5.3.3 Gangrene of the scrotum (Fournier's gangrene)	X	X	
15.5.3.4 Prostatitis		X	X
15.5.3.5 Urethritis			X
15.5.4 Structural			
15.5.4.1 Paraphimosis/Phimosis		X	
15.5.4.2 Priapism		X	
15.5.4.3 Prostatic hypertrophy (BPH)			X
15.5.4.4 Torsion of testis		X	
15.5.5 Testicular masses			X
15.5.6 Tumors			
15.5.6.1 Prostate			X
15.5.6.2 Testis			X
<b>15.6 Nephritis</b>		X	X
15.6.1 Hemolytic uremic syndrome		X	
<b>15.7 Structural Disorders</b>			
15.7.1 Calculus of urinary tract		X	X
15.7.2 Obstructive uropathy		X	
15.7.3 Polycystic kidney disease			X
<b>15.8 Tumors</b>			X



## 16.0 THORACIC-RESPIRATORY DISORDERS

	Critical	Emergent	Lower Acuity
<b>16.1 Acute Upper Airway Disorders</b>			
16.1.1 Infections			
16.1.1.1 Croup		X	
16.1.1.2 Epiglottitis	X	X	
16.1.1.3 Pertussis	X	X	
16.1.1.4 Upper respiratory infection			X
16.1.2 Obstruction	X		
16.1.3 Tracheostomy/Complications	X	X	
<b>16.2 Disorders of Pleura, Mediastinum, and Chest Wall</b>			
16.2.1 Costochondritis			X
16.2.2 Mediastinitis	X	X	
16.2.3 Pleural effusion		X	X
16.2.4 Pleuritis			X
16.2.5 Pneumomediastinum		X	
16.2.6 Pneumothorax			
16.2.6.1 Simple		X	
16.2.6.2 Tension	X		
16.2.7 Empyema		X	X
<b>16.3 Noncardiogenic Pulmonary Edema</b>	X	X	
<b>16.4 Obstructive/Restrictive Lung Disease</b>			
16.4.1 Asthma/Reactive airway disease	X	X	
16.4.2 Bronchitis and bronchiolitis		X	X
16.4.3 Bronchopulmonary dysplasia		X	X
16.4.4 Chronic obstructive pulmonary disease	X	X	X
16.4.5 Cystic fibrosis	X	X	X
16.4.6 Environmental/Industrial exposure	X	X	X
16.4.7 Foreign body	X	X	
<b>16.5 Physical and Chemical Irritants/Insults</b>			
16.5.1 Pneumoconiosis		X	X
16.5.2 Toxic effects of gases, fumes, vapors	X	X	X
<b>16.6 Pulmonary Embolism/Infarct</b>			
16.6.1 Septic emboli	X	X	
16.6.2 Venous thromboembolism	X	X	
<b>16.7 Pulmonary Infections</b>			
16.7.1 Lung abscess		X	
16.7.2 Pneumonia			

16.7.2.1	Aspiration	X	X	
16.7.2.2	Community-acquired	X	X	X
16.7.2.3	Health care-associated	X	X	X
16.7.3	Pulmonary tuberculosis		X	
<b>16.8 Tumors</b>				
16.8.1	Breast			X
16.8.2	Pulmonary		X	X
16.9	<b>Pulmonary Hypertension</b>	X	X	X

## 17.0 TOXICOLOGIC DISORDERS

	Critical	Emergent	Lower Acuity
<b>17.1 Drug and Chemical Classes</b>			
17.1.1 Analgesics			
17.1.1.1 Acetaminophen		X	
17.1.1.2 Nonsteroidal anti-inflammatories (NSAIDs)		X	X
17.1.1.3 Opiates and related narcotics	X	X	
17.1.1.4 Salicylates	X	X	
17.1.2 Alcohol			
17.1.2.1 Ethanol	X	X	X
17.1.2.2 Glycol	X	X	
17.1.2.3 Isopropyl	X	X	X
17.1.2.4 Methanol	X	X	
17.1.3 Anesthetics	X	X	
17.1.4 Anticholinergics/Cholinergics	X	X	
17.1.5 Anticoagulants	X	X	
17.1.6 Anticonvulsants	X	X	
17.1.7 Antidepressants	X	X	
17.1.8 Antiparkinsonism drugs		X	
17.1.9 Antihistamines and antiemetics		X	
17.1.10 Antipsychotics	X	X	
17.1.11 Bronchodilators		X	
17.1.12 Carbon monoxide	X	X	
17.1.13 Cardiovascular drugs			
17.1.13.1 Antiarrhythmics	X	X	
17.1.13.1.1 Digitalis	X	X	
17.1.13.2 Antihypertensives	X	X	
17.1.13.3 Beta blockers	X	X	
17.1.13.4 Calcium channel blockers	X	X	
17.1.14 Caustic agents			
17.1.14.1 Acid	X	X	
17.1.14.2 Alkali	X	X	
17.1.15 Cocaine	X	X	X
17.1.16 Cyanides, hydrogen sulfide	X	X	
17.1.17 Hallucinogens		X	X
17.1.18 Hazardous materials	X	X	
17.1.19 Heavy metals	X	X	
17.1.20 Herbicides, insecticides, and rodenticides			
17.1.20.1 Paraquat	X	X	
17.1.21 Household/Industrial chemicals	X	X	X
17.1.22 Hormones/Steroids		X	X
17.1.23 Hydrocarbons	X	X	
17.1.24 Hypoglycemics/Insulin	X	X	

17.1.25	Inhaled toxins	X	X	
17.1.26	Iron	X	X	
17.1.27	Isoniazid	X	X	
17.1.28	Marine toxins	X	X	X
17.1.29	Methemoglobinemia	X	X	
17.1.30	Mushrooms/Poisonous plants	X	X	
17.1.31	Neuroleptics	X	X	
17.1.32	Non-prescription drugs		X	X
17.1.33	Organophosphates	X	X	
17.1.34	Recreational drugs	X	X	X
17.1.35	Sedatives/Hypnotics	X	X	
17.1.36	Stimulants/Sympathomimetics		X	X
17.1.37	Strychnine	X	X	
17.1.38	Lithium	X	X	X
17.1.39	Nutritional supplements		X	X
17.1.40	Chemical warfare agents	X	X	X

## 18.0 TRAUMATIC DISORDERS

		Critical	Emergent	Lower Acuity
<b>18.1 Trauma</b>				
18.1.1	Abdominal trauma			
18.1.1.1	Diaphragm	X	X	
18.1.1.2	Hollow viscus	X	X	
18.1.1.3	Penetrating	X	X	
18.1.1.4	Retroperitoneum	X	X	
18.1.1.5	Solid organ	X	X	
18.1.1.6	Vascular	X	X	
18.1.2	Chest trauma			
18.1.2.1	Aortic dissection/Disruption	X		
18.1.2.2	Contusion			
18.1.2.2.1	Cardiac	X	X	X
18.1.2.2.2	Pulmonary	X	X	
18.1.2.3	Fracture			
18.1.2.3.1	Clavicle		X	X
18.1.2.3.2	Ribs/Flail chest	X	X	X
18.1.2.3.3	Sternum		X	X
18.1.2.4	Hemothorax	X	X	
18.1.2.5	Penetrating chest trauma	X	X	
18.1.2.6	Pericardial tamponade	X		
18.1.2.7	Pneumothorax			
18.1.2.7.1	Simple		X	
18.1.2.7.2	Tension	X		
18.1.3	Cutaneous injuries			
18.1.3.1	Avulsions		X	X
18.1.3.2	Bite wounds		X	X
18.1.3.3	Burns			
18.1.3.3.1	Electrical	X	X	X
18.1.3.3.2	Chemical	X	X	X
18.1.3.3.3	Thermal	X	X	X
18.1.3.4	Lacerations		X	X
18.1.3.5	Puncture wounds		X	X
18.1.4	Facial fractures			X
18.1.4.1	Dental		X	X
18.1.4.2	Le Fort	X	X	X
18.1.4.3	Mandibular		X	X
18.1.4.4	Orbital		X	X
18.1.5	Genitourinary trauma			
18.1.5.1	Bladder		X	
18.1.5.2	External genitalia		X	
18.1.5.3	Renal		X	X
18.1.5.4	Ureteral		X	

18.1.6	Head trauma			
	18.1.6.1 Intracranial injury	X	X	
	18.1.6.2 Scalp lacerations/Avulsions		X	X
	18.1.6.3 Skull fractures		X	X
18.1.7	Injuries of the spine			
	18.1.7.1 Dislocations/Subluxations	X	X	
	18.1.7.2 Fractures	X	X	X
	18.1.7.3 Sprains/Strains			X
18.1.8	Lower extremity bony trauma			
	18.1.8.1 Dislocations/Subluxations		X	
	18.1.8.2 Fractures (open and closed)		X	X
18.1.9	Neck trauma			
	18.1.9.1 Laryngotracheal injuries	X	X	
	18.1.9.2 Penetrating neck trauma	X	X	
	18.1.9.3 Vascular injuries			
	18.1.9.3.1 Carotid artery	X	X	
	18.1.9.3.2 Jugular vein	X	X	
18.1.10	Ophthalmologic trauma			
	18.1.10.1 Corneal abrasions/Lacerations		X	X
	18.1.10.2 Corneal burns			
	18.1.10.2.1 Acid		X	
	18.1.10.2.1 Alkali		X	
	18.1.10.2.2 Ultraviolet		X	X
	18.1.10.3 Eyelid lacerations		X	
	18.1.10.4 Foreign body		X	
	18.1.10.5 Hyphema		X	
	18.1.10.6 Lacrimal duct injuries		X	
	18.1.10.7 Penetrating globe injuries		X	
	18.1.10.8 Retinal detachments		X	
	18.1.10.9 Traumatic iritis		X	X
	18.1.10.10 Retrobulbar hematoma		X	
18.1.11	Otologic trauma			
	18.1.11.1 Hematoma		X	X
	18.1.11.2 Perforated tympanic membrane			X
18.1.12	Pediatric fractures			
	18.1.12.1 Epiphyseal		X	X
	18.1.12.2 Greenstick		X	
	18.1.12.3 Torus			X
18.1.13	Pelvic fracture	X	X	
18.1.14	Soft-tissue extremity injuries			
	18.1.14.1 Amputations/Replantation		X	
	18.1.14.2 Compartment syndromes		X	
	18.1.14.3 High-pressure injection		X	
	18.1.14.4 Injuries to joints		X	X
	18.1.14.4.1 Knee		X	X
	18.1.14.4.2 Penetrating		X	

18.1.14.5	Penetrating soft-tissue		X	X
18.1.14.6	Periarticular			X
18.1.14.7	Sprains/strains			X
18.1.14.8	Tendon injuries			
	18.1.14.8.1 Lacerations/Transections			X
	18.1.14.8.2 Ruptures		X	
	18.1.14.8.2.1 Achilles tendon		X	
	18.1.14.8.2.2 Patellar tendon		X	
18.1.14.9	Vascular injuries	X	X	
18.1.15	Spinal cord and nervous system trauma			
18.1.15.1	Cauda equina syndrome	X	X	
18.1.15.2	Injury to nerve roots		X	X
18.1.15.3	Peripheral nerve injury		X	X
18.1.15.4	Spinal cord injury	X	X	
	18.1.15.4.1 Spinal cord injury without radiologic abnormality (SCIWORA)			X
18.1.16	Upper extremity bony trauma			
18.1.16.1	Dislocations/Subluxations		X	
18.1.16.2	Fractures (open and closed)		X	X
<b>18.2 Trauma in Pregnancy</b>				
18.2.1	Abruptio placentae	X	X	
18.2.2	Perimortem C-section	X		
18.2.3	Premature labor		X	
18.2.4	Rupture of uterus	X		
<b>18.3 Multi-system Trauma</b>				
18.3.1	Blast injury	X	X	

## 19.0 PROCEDURES AND SKILLS INTEGRAL TO THE PRACTICE OF EMERGENCY MEDICINE

### 19.1 Airway Techniques

- 19.1.1 Intubation
- 19.1.2 Airway adjuncts
- 19.1.3 Surgical airway
- 19.1.4 Mechanical ventilation
- 19.1.5 Non-invasive ventilatory management
- 19.1.6 Ventilatory monitoring

### 19.2 Resuscitation

- 19.2.1 Cardiopulmonary resuscitation
- 19.2.2 Neonatal resuscitation
- 19.2.3 Pediatric resuscitation
- 19.2.4 Post-resuscitative care
- 19.2.5 Blood, fluid, and component therapy
- 19.2.6 Arterial catheter insertion
- 19.2.7 Central venous access
- 19.2.8 Intraosseous infusion
- 19.2.9 Defibrillation

### 19.3 Anesthesia and Acute Pain Management

- 19.3.1 Local
- 19.3.2 Regional nerve block
- 19.3.3 Procedural sedation and analgesia

### 19.4 Diagnostic and Therapeutic Procedures

- 19.4.1 Abdominal and Gastrointestinal
  - 19.4.1.1 Gastric lavage
  - 19.4.1.2 Gastrostomy tube replacement
  - 19.4.1.3 Nasogastric tube
  - 19.4.1.4 Paracentesis
- 19.4.2 Cardiovascular and Thoracic
  - 19.4.2.1 Cardiac pacing
  - 19.4.2.2 Cardioversion
  - 19.4.2.3 ECG interpretation
  - 19.4.2.4 Pericardiocentesis
  - 19.4.2.5 Thoracentesis
  - 19.4.2.6 Thoracostomy
- 19.4.3 Cutaneous
  - 19.4.3.1 Escharotomy
  - 19.4.3.2 Incision and drainage
  - 19.4.3.3 Trephination, nails
  - 19.4.3.4 Wound closure techniques
  - 19.4.3.5 Wound management



- 19.4.4 Head, Ear, Eye, Nose, and Throat
  - 19.4.4.1 Control of epistaxis
  - 19.4.4.2 Indirect laryngoscopy
  - 19.4.4.3 Slit lamp examination
  - 19.4.4.4 Fundoscopy
  - 19.4.4.5 Otoscopy
  - 19.4.4.6 Tonometry
- 19.4.5 Systemic Infectious
  - 19.4.5.1 Personal protection (equipment and techniques)
  - 19.4.5.2 Universal precautions and exposure management
- 19.4.6 Musculoskeletal
  - 19.4.6.1 Arthrocentesis
  - 19.4.6.2 Fracture/dislocation immobilization techniques
  - 19.4.6.3 Fracture/dislocation reduction techniques
  - 19.4.6.4 Spine immobilization techniques
- 19.4.7 Nervous System
  - 19.4.7.1 Lumbar puncture
- 19.4.8 Obstetrics and Gynecology
  - 19.4.8.1 Delivery of newborn
  - 19.4.8.2 Perimortem C-section
- 19.4.9 Psychobehavioral
  - 19.4.9.1 Psychiatric screening examination
  - 19.4.9.2 Violent patient management/restraint
- 19.4.10 Renal and Urogenital
  - 19.4.10.1 Bladder catheterization
    - 19.4.10.1.1 Urethral catheter
    - 19.4.10.1.2 Suprapubic catheter
  - 19.4.10.2 Cystourethrogram
- 19.4.11 Toxicologic
  - 19.4.11.1 Decontamination

## 19.5 **Other Diagnostic and Therapeutic Procedures**

- 19.5.1 Foreign body removal
- 19.5.2 Ultrasound
  - 19.5.2.1 Diagnostic
  - 19.5.2.2 Procedural

## 20.0 OTHER CORE COMPETENCIES OF THE PRACTICE OF EMERGENCY MEDICINE

### 20.1 Interpersonal and Communication Skills 人際與溝通技巧

#### 20.1.1 Interpersonal Skills 人際技巧

20.1.1.1 Inter-departmental and medical staff relations  
跨部門和醫療同仁的關係

20.1.1.2 Intra-departmental relations, teamwork, and collaboration skills  
部門內的關係，團隊合作和合作技能

20.1.1.3 Patient and family experience of care 病人及家屬的照護經驗

#### 20.1.2 Communication Skills 溝通技巧

20.1.2.1 Complaint management and service recovery 抱怨處理和服務補救

20.1.2.2 Conflict management 衝突管理

20.1.2.3 Crisis resource management 危機資源管理

20.1.2.4 Delivering bad news 告知壞消息

20.1.2.5 Multicultural approach to the ED patient 顧及多元文化的醫病溝通

20.1.2.6 Negotiation skills 談判技巧

### 20.2 Practice-based Learning and Improvement 從工作中學習與成長

#### 20.2.1 Performance improvement and lifelong learning 能力的提昇和終身學習

20.2.1.1 Evidence-based medicine 實證醫學

20.2.1.2 Interpretation of medical literature 醫學文獻判讀

20.2.1.3 Knowledge translation 知識轉譯

20.2.1.4 Patient safety and medical errors 病人安全與醫療失誤

20.2.1.5 Performance evaluation and feedback 能力的評估與回饋

20.2.1.6 Research 研究

#### 20.2.2 Practice guidelines 臨床指引

#### 20.2.3 Education 教育

20.2.3.1 Patient and family 病人及家屬

20.2.3.2 Provider 醫療工作人員

### 20.3 Professionalism 專業素養

#### 20.3.1 Advocacy 倡導

20.3.1.1 Patient 病人

20.3.1.2 Professional 專業人員

#### 20.3.2 Ethical Principles 倫理原則

20.3.2.1 Conflicts of interest 利益衝突

20.3.2.2 Diversity awareness 多元意識

20.3.2.3 Electronic communications/Social media 電子通訊/社交媒體

20.3.2.4 Medical ethics 醫學倫理

#### 20.3.3 Leadership and Management Principles 領導和管理原則

#### 20.3.4 Well-being 幸福

- 20.3.4.1 Fatigue and impairment 疲勞及損傷
- 20.3.4.2 Time management/Organizational skills 時間管理/組織能力
- 20.3.4.3 Work/Life balance 工作/生活平衡
- 20.3.4.4 Work dysphoria (burn-out) 工作厭煩(耗竭)

## 20.4 Systems-based Practice 體制下的臨床工作

- 20.4.1 Clinical Informatics 臨床資訊系統
  - 20.4.1.1 Computerized physician order entry 電腦醫囑
  - 20.4.1.2 Clinical decision support 臨床決策支援
  - 20.4.1.3 Electronic health record 電子病歷
  - 20.4.1.4 Health information integration 醫療資訊整合
- 20.4.2 ED Administration 急診管理
  - 20.4.2.1 Contracts and practice models 契約與執業模式
  - 20.4.2.2 Patient flow and throughput 病人流量和處理速度
    - 20.4.2.2.1 Patient triage and classification 病人檢傷與分類
    - 20.4.2.2.2 Hospital crowding and diversion 醫院壅塞與分流
    - 20.4.2.2.3 Observation and rapid treatment units 觀察與快速治療單位
  - 20.4.2.3 Financial Principles 財務原則
    - 20.4.2.3.1 Billing and coding 計價和編碼
    - 20.4.2.3.2 Cost-effective care and resource utilization  
合乎成本效益的服務和資源利用
    - 20.4.2.3.3 Reimbursement issues 請款問題
  - 20.4.2.4 Human Resource Management 人力資源管理
    - 20.4.2.4.1 Allied health professionals 專職醫療人員
    - 20.4.2.4.2 Recruitment, credentialing, and orientation  
招聘，資格審查和職前訓練
- 20.4.3 ED Operations 急診運作
  - 20.4.3.1 Policies and procedures 政策與流程
  - 20.4.3.2 ED data acquisition and operational metrics 急診資料搜集與營運指標
  - 20.4.3.3 Safety, security, and violence in the ED 急診安全,保全與暴力
- 20.4.4 Health Care Coordination 健康照護整合
  - 20.4.4.1 End-of-life and palliative care 臨終與安寧照護
  - 20.4.4.2 Long-term care 長期照護
  - 20.4.4.3 Outpatient services 門診服務
- 20.4.5 Regulatory/Legal 規定/法律
  - 20.4.5.1 Accreditation 醫院評鑑及緊急醫療能力分級評定
  - 20.4.5.2 Compliance and reporting requirements 合乎法規與報告要求
  - 20.4.5.3 Confidentiality 病人隱私
  - 20.4.5.4 Consent, capacity, and refusal of care 知情同意,照護容量和拒絕治療
  - 20.4.5.5 緊急醫療救護法
  - 20.4.5.6 External quality metrics 外部品質指標

20.4.6 Risk Management 風險管理

20.4.6.1 Liability and litigation 法律責任和訴訟

20.4.6.2 Professional liability insurance 醫療責任保險

20.4.6.3 Risk mitigation 減少風險

20.4.7 Evolving Trends in Health Care Delivery 健康照護的發展趨勢

20.4.8 Regionalization of Emergency Care 區域化的緊急醫療照護