快速與全面的平衡點
內科值班教戰守則

高雄長庚
F1 徐莞嘉

值班醫師最大

- 但無論做/不做任何處置，必須說得出理由，還有請愛惜羽毛

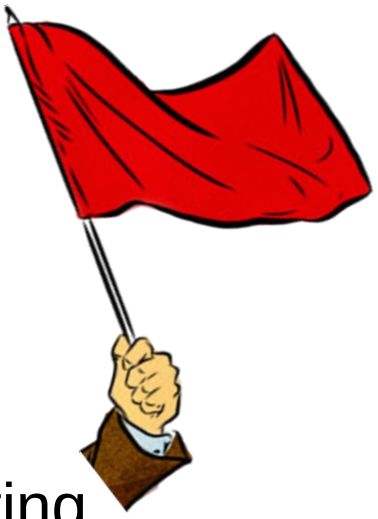
- 病人有狀況時請寫duty note與這樣處理的理由、和對家屬的解釋 (保護自己 & 利於當科病情掌握)
  - 特別是**critical**的病人

何時要去看病人?

原則上，全部complaint都應該去看病人!

Red flag sign:

- **Consciousness**: Seizure, Conscious change, Irritable
- **BP**: Hypotension
- **T**: Fever
- **P**: Tachycardia/bradycardia
- **R**: Dyspnea, Cyanosis
- Others:
  - Chest pain, Cold sweating
  - Abdominal pain, Tarry or bloody stool, Vomiting



什麼狀況一定要去看病人?

- 當你搞不清楚狀況時....
- 家屬很mur時....

如何看病人

1. 什麼樣的人得什麼樣的病，History & PE重要
   (Drug abuser → infective endocarditis)
- COPD pt 下床上廁所回來dyspnea
- Pt under HD dyspnea => pulmonary edema
- Pt post-cath dyspnea => tamponade, MR, acute instent thrombosis…
- Pt post trauma or invasive procedure => hemo/pneumothorax

2. 有想到這個病，才診斷得出這個病

一定要讓家屬及護理師知道醫師來過了！

General concept

- 1. Intubation/CPCR
- 2. Sudden collapse and shock

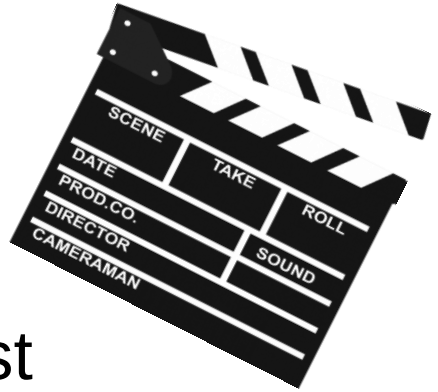
  (Early management could avoid most of CPCR)
- 3. Shock該不該fluid challenge?
- 4. BiPAP v.s. Intubation

Contraindication of NIPPV

Contraindications to noninvasive positive pressure ventilation

Cardiac or respiratory arrest
Nonrespiratory organ failure that is acutely life-threatening
Severe encephalopathy (eg, GCS <10)
Severe upper gastrointestinal bleeding
Hemodynamic instability or unstable cardiac arrhythmia
Facial or neurological surgery, trauma, or deformity
Upper airway obstruction
Inability to cooperate/protect airway
Inability to clear secretions
High risk for aspiration

Intubation/CPCR

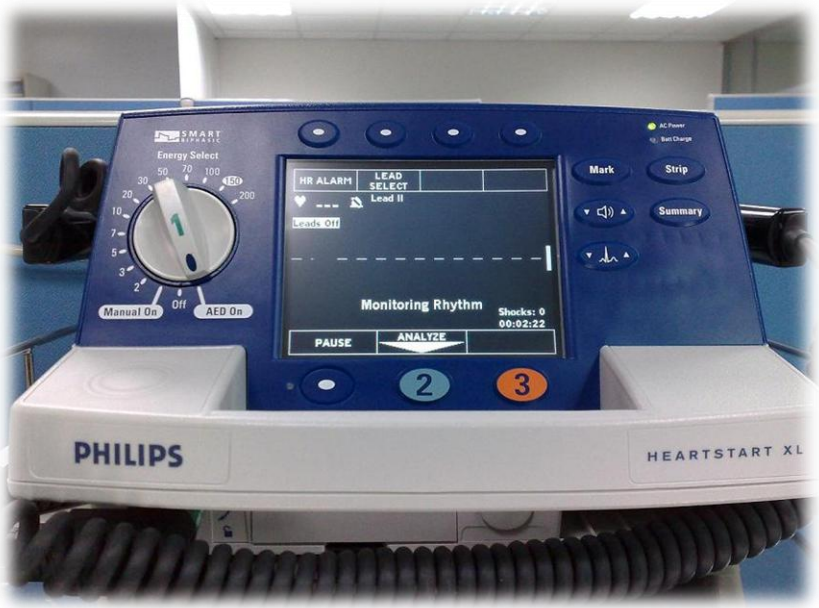


- 1. Midazolam (5mg) = Dormicum 1pc iv st
  Rocuronium (50mg) = Esmeron 30mg iv st
- 2. Epinephrine (1mg) = Bosmin 3分鐘打1支
- 3. Dopamine 4pc in NS 500cc run 20cc/hr
  Norepinephrine 4pc in D5W 500cc run 20cc/hr
  (Levophed line)
- 4. VT/VF electrical defibrillation 非同步 200J (B), 360J (Y)
- 5. Jusomin 4pc/Calcium gluconate 1pc/Glucose 4pc/Amiodarone 2pc
- 6. NS full run

ACLS!!

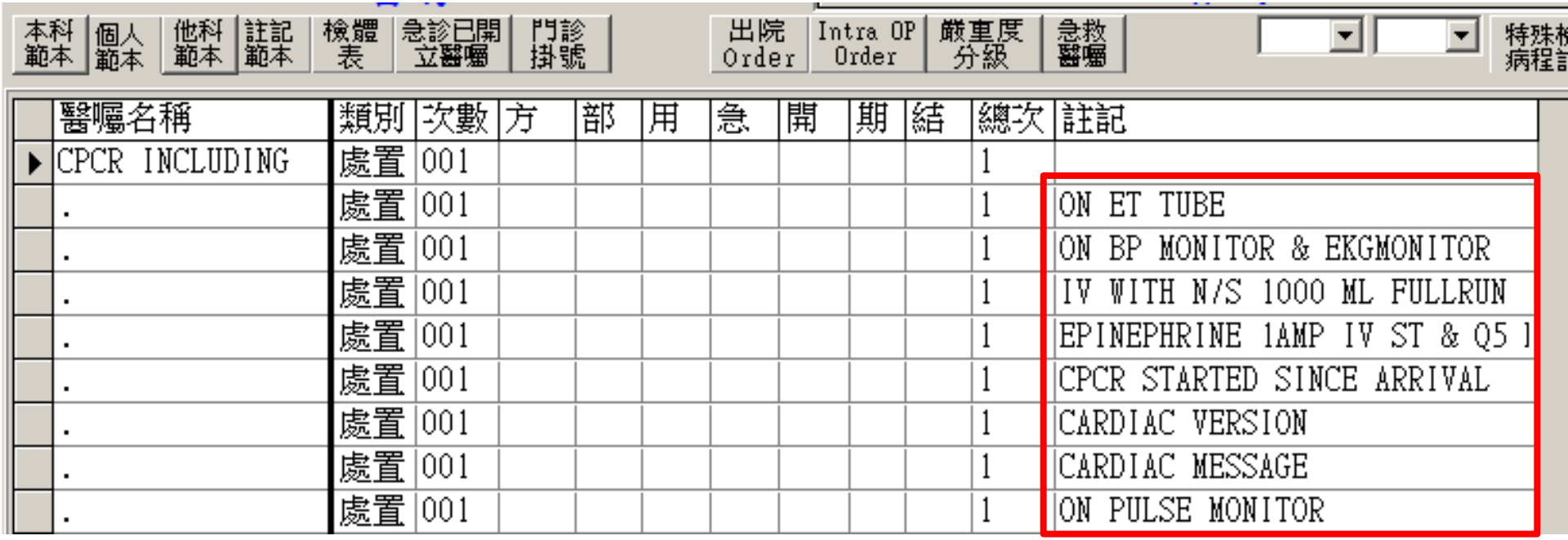
好衰，碰到CPCR...

- 有範本☺
- 最後再一起開藥“急救盤藥品補充”
- 標準30分鐘
- 留note



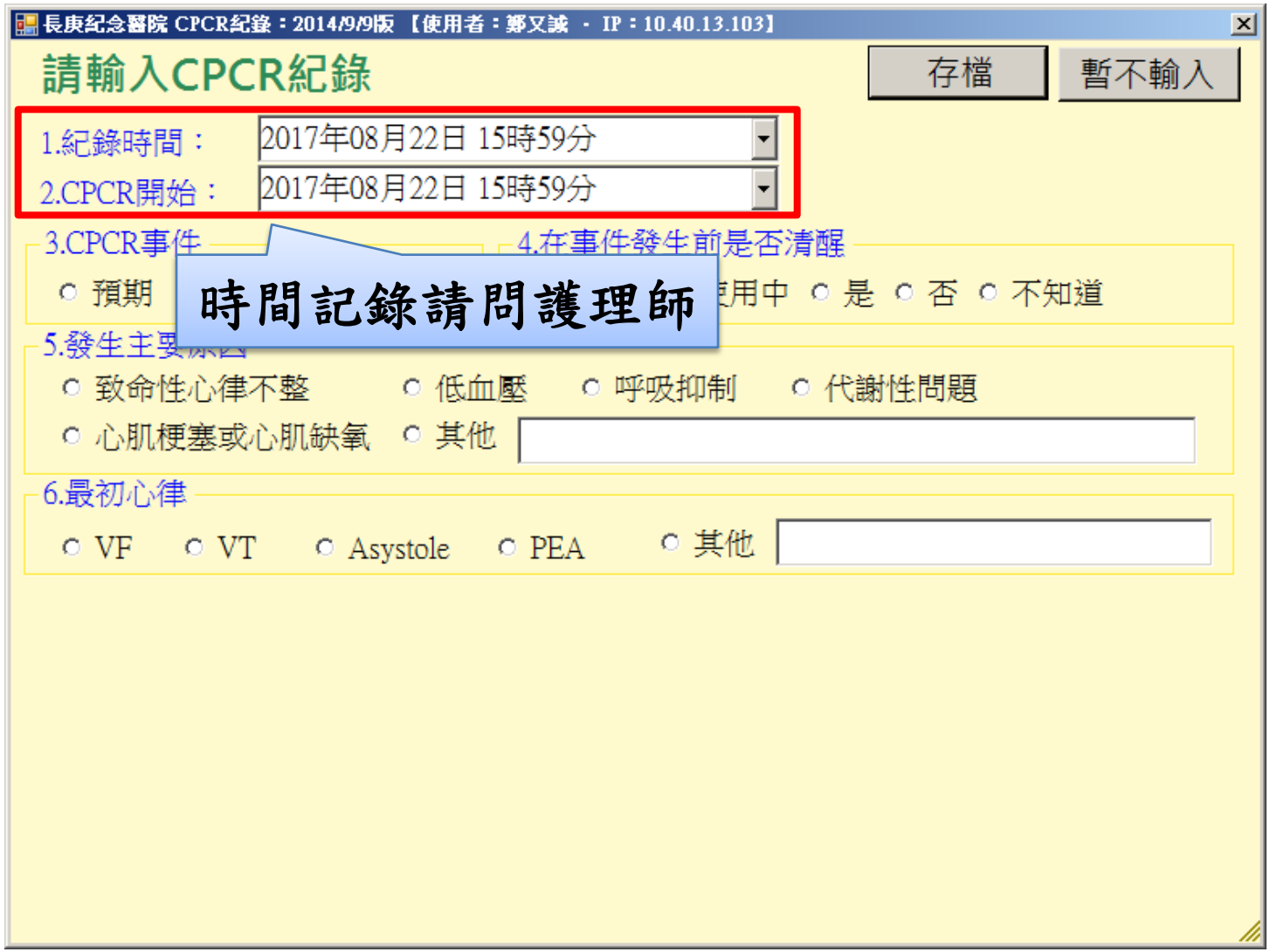
CPCR範本


長庚紀念醫院
醫囑
藥囑
本科範本
個人範本
他科範本
註記範本
檢體表
急診已開立醫囑
門診掛號
出院Order
Intra OP Order
嚴重度分級
急救醫囑
特殊檢查病程記錄
項次
醫囑名稱
類別
次數
方向
部位/檢體
用法
急
開始日
期間(日)
結束日
總次
註記
001
002
003



請自行modify內容

如有空可幫忙點一下(院內CPCR品管)



CPCR醫囑

- On endo/intubation 7.0/7.5 Fr. fix __cm
  - 呼吸治療醫囑：Ventilator use
  - portable CXR
- On (位置) CVC/CVP fix __cm
  - e.g, left/right neck: 17/15; left/right subclavian:15/13cm
- IVF: challenge, continuous run…
  - levophed / dopamine line (泡法+滴速+調法)
- On 其他管路 (NG, foley…)

CPCR醫囑

- On critical order + condition: on critical→會印出「病危通知單」，記得給家屬簽名
- Book MICU (電話聯絡MICU 1)
- Stat 抽血
- 開藥
  - Bosmin/midazolam/esmeron/jusomine…
  - 請問護理師用了哪些藥及支數，記得開 once並選「急救盤藥品補充」
- 其他

Note

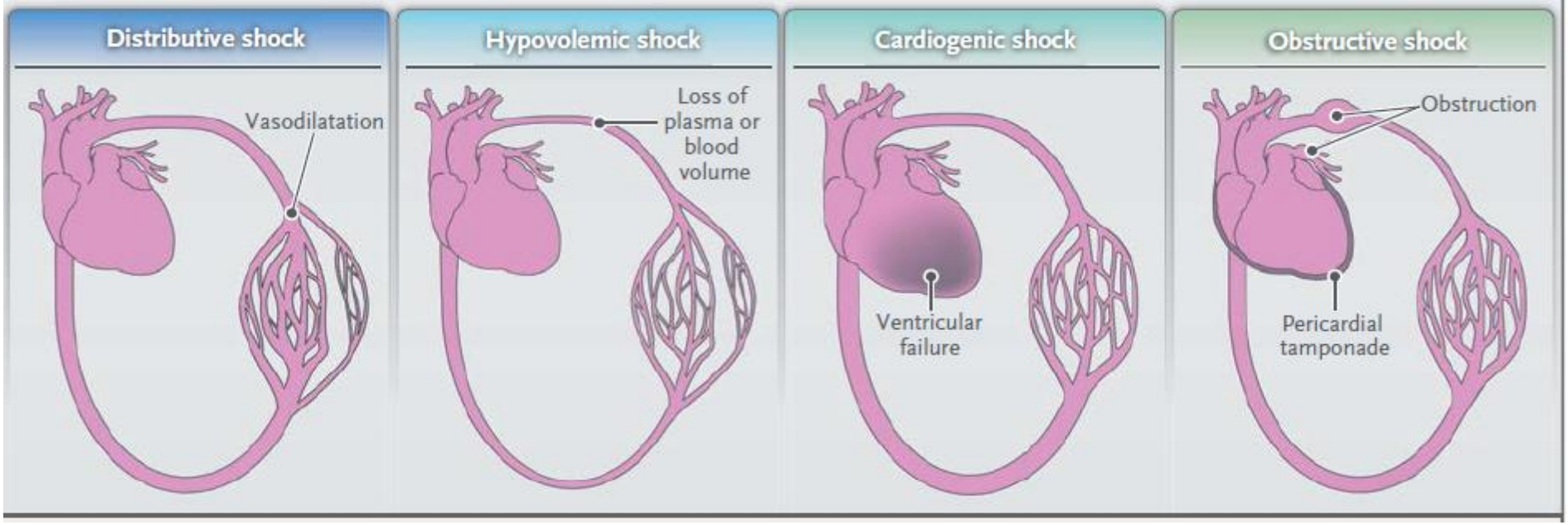
- 記得寫Transfer Note並帶入現狀用藥：病人若轉MICU 3 因不同系統(醫學大樓→兒醫)藥囑會全部被cut掉
- 電話交班

- Duty note

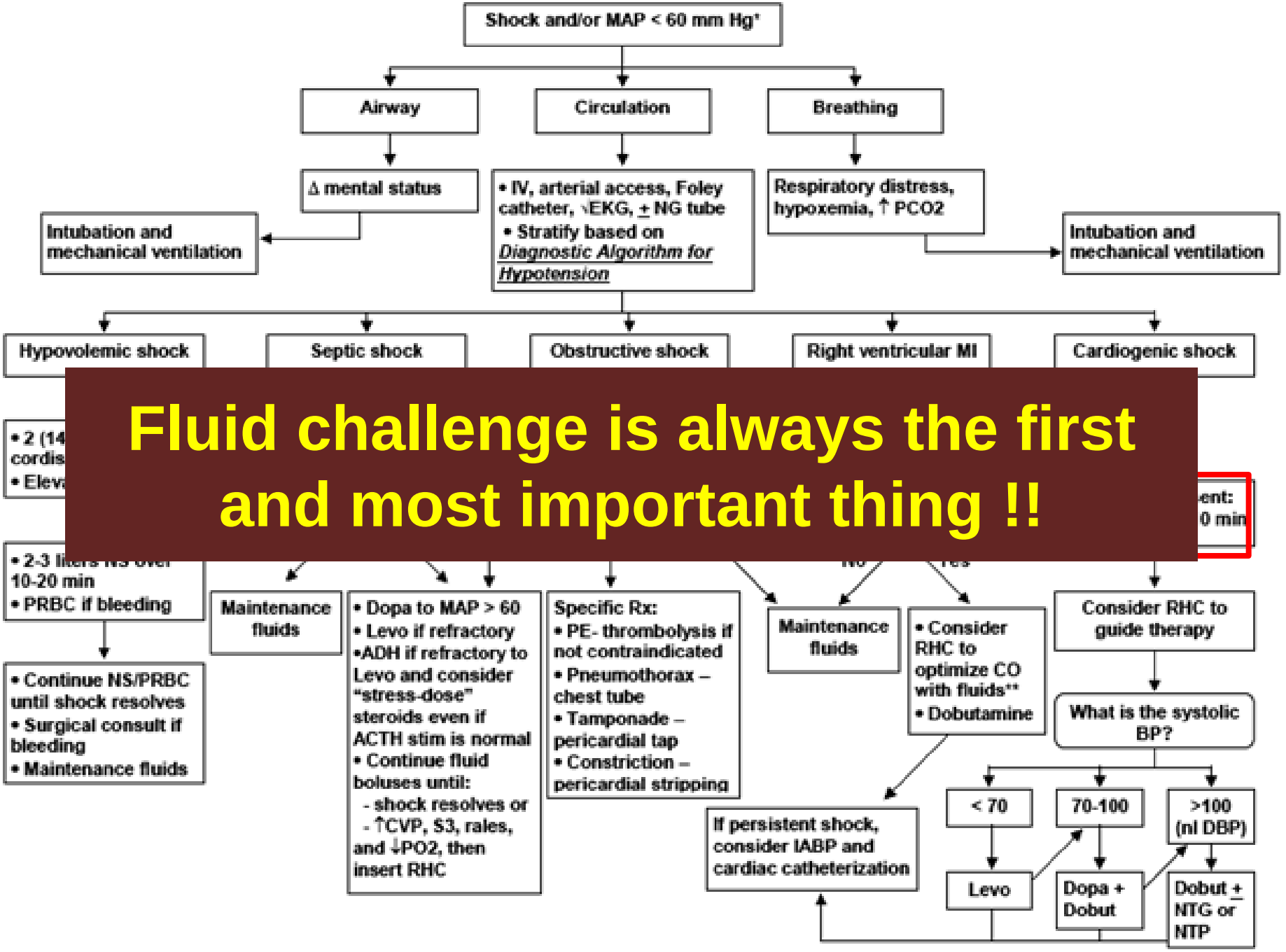
BP DOWN & shock

- Shock = Circulatory failure → Cell O2 utilization ↓
- Evidence of "hypoperfusion"
  –Lactate false (+) in liver/renal failure, oncology…

Systemic aretial hypotension	SBP <90mmHg/ **MAP** <70mmHg + Tachycardia May be moderare in chronic hypertension
Tissue hypoperfusion "3 windows"	Cutaneous：Skin cold/Clammy，Vasoconstriction/Cyanosis Renal：Urine output <0.5ml/kg/hr Neurologic：obtundation/disorientation/confusion
Hyperlactatemia	>1.5mmole/L (13.5mg/dL) (normal range< 1 mmole/L)



Classification	Examples	Hemodynamic Presentation							
		CI	SvO2	SVR	PVR	RAP	RVP	PAP	PCWP
Cardiogenic	Acute MI Cardiomyopathy Valvular heart Myocarditis Arrhythmia	↓	↓	↑	N	↑	↑	↑	↑
Hypovoelmic	External (ex: bleeding) Internal	↓	↓	↑	N	↓	↓	↓	↓
Obstructive	Pulmonary embolism Cardiac tamponade Tension pneumothorax	↓	N/ ↓	↑ /N	↑	↑	↑	↑	N/ ↓
Distrubutive	Severe sepsis Anaphylaxis	↑ ↓ (late)	↑ ↓ (late)	↓ ↑ (late)	N	N/ ↓	N/ ↓	N/ ↓	N/ ↓


Shock and/or MAP < 60 mm Hg*
Airway
Circulation
Breathing
Δ mental status
• IV, arterial access, Foley catheter, √EKG, ± NG tube
• Stratify based on Diagnostic Algorithm for Hypotension
Respiratory distress, hypoxemia, ↑ PCO2
Intubation and mechanical ventilation
Intubation and mechanical ventilation
Hypovolemic shock
Septic shock
Obstructive shock
Right ventricular MI
Cardiogenic shock
Fluid challenge is always the first and most important thing !!
• 2 (14
cordis
• Eleva
ent:
0 min
• 2-3 liters NS over 10-20 min
• PRBC if bleeding
• Continue NS/PRBC until shock resolves
• Surgical consult if bleeding
• Maintenance fluids
Maintenance fluids
• Dopa to MAP > 60
• Levo if refractory
•ADH if refractory to Levo and consider "stress-dose" steroids even if ACTH stim is normal
• Continue fluid boluses until:
- shock resolves or
- ↑CVP, S3, rales, and ↓PO2, then insert RHC
Specific Rx:
• PE- thrombolysis if not contraindicated
• Pneumothorax – chest tube
• Tamponade – pericardial tap
• Constriction – pericardial stripping
Maintenance fluids
• Consider RHC to optimize CO with fluids**
• Dobutamine
Consider RHC to guide therapy
What is the systolic BP?
< 70
70-100
>100 (nl DBP)
Levo
Dopa + Dobut
Dobut ± NTG or NTP
If persistent shock, consider IABP and cardiac catheterization

Chest

- 1. 75 M, CC: chest tightness (COPD)
- 2. 85 M, CC: fever and dyspnea
- 3. 20 M, CC: chest tightness with exertional dyspnea (thin stature)
- 4. 85 M, CC: progressive dyspnea
  (bed-ridden, clear CxR)
- 5. 32 F, CC: progressive dyspnea (OCP)
- 6. 32 F, CC: progressive dyspnea (SLE)
- 7. 32 F, CC: sudden onset of dyspnea

Dyspnea (1)

1. Peripheral: (a) carotid body: PaO2
   (b) aortic body: O2 blood flow
2. Central: chemoreceptor: PaCO2
3. Dyspnea簡單想: **氧氣太低**或者**二氧化碳太高**
4. Brain → Neuromuscular → Airway → Lung → Heart → Blood → metabolic → Psychogenic 去想
5. Case演練

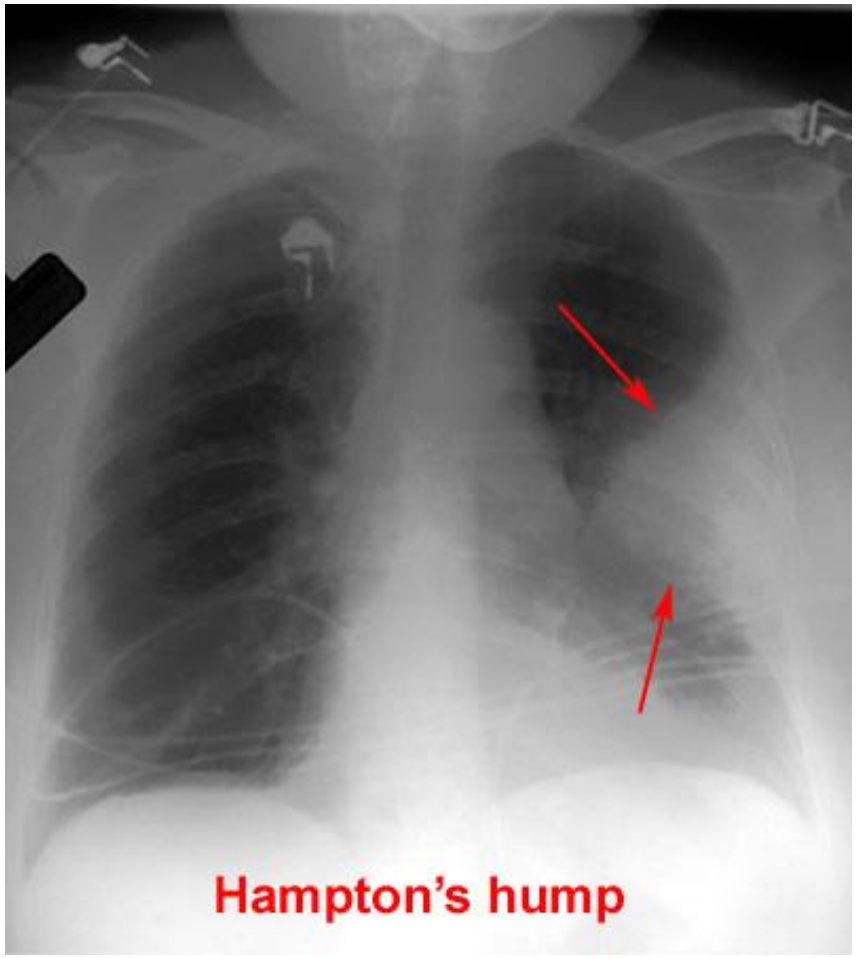
Dyspnea (2)

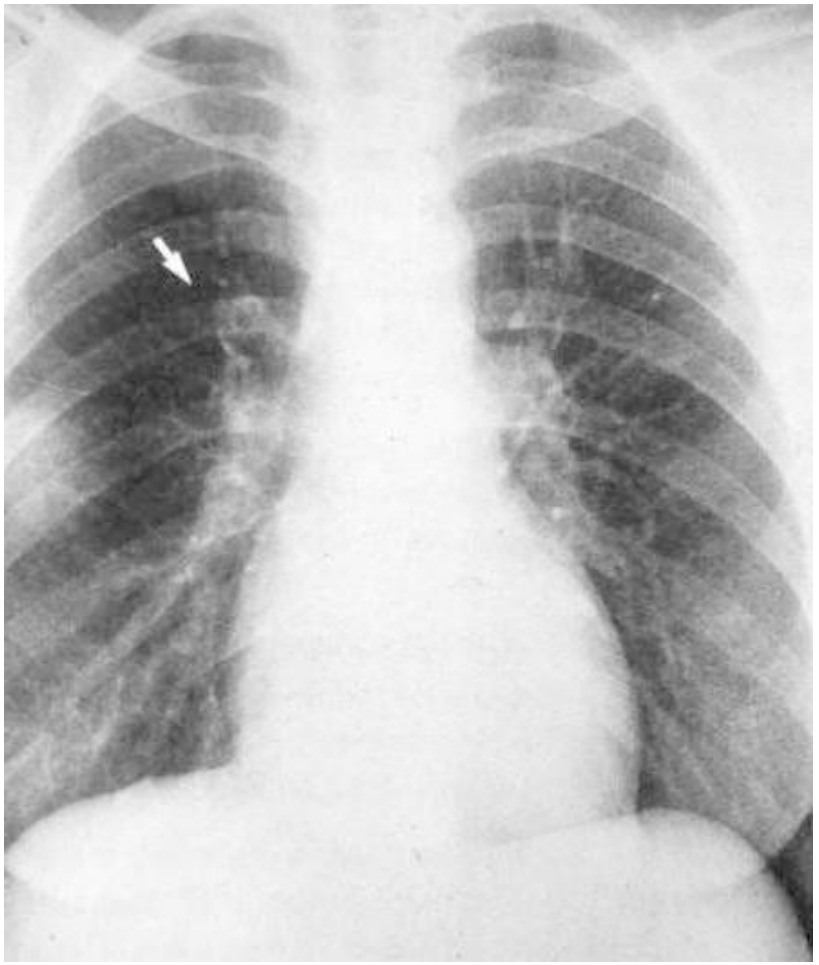
- 6223278 => 55y/o M HCC, admitted for PEI
- 6065954 => 66y/o M, Post RLL lobectomy
- 6781862 => 72y/o M, Prostate cancer
- 9470090 => 65 y/o M, RLL pleural effusion

Pulmonary emboli

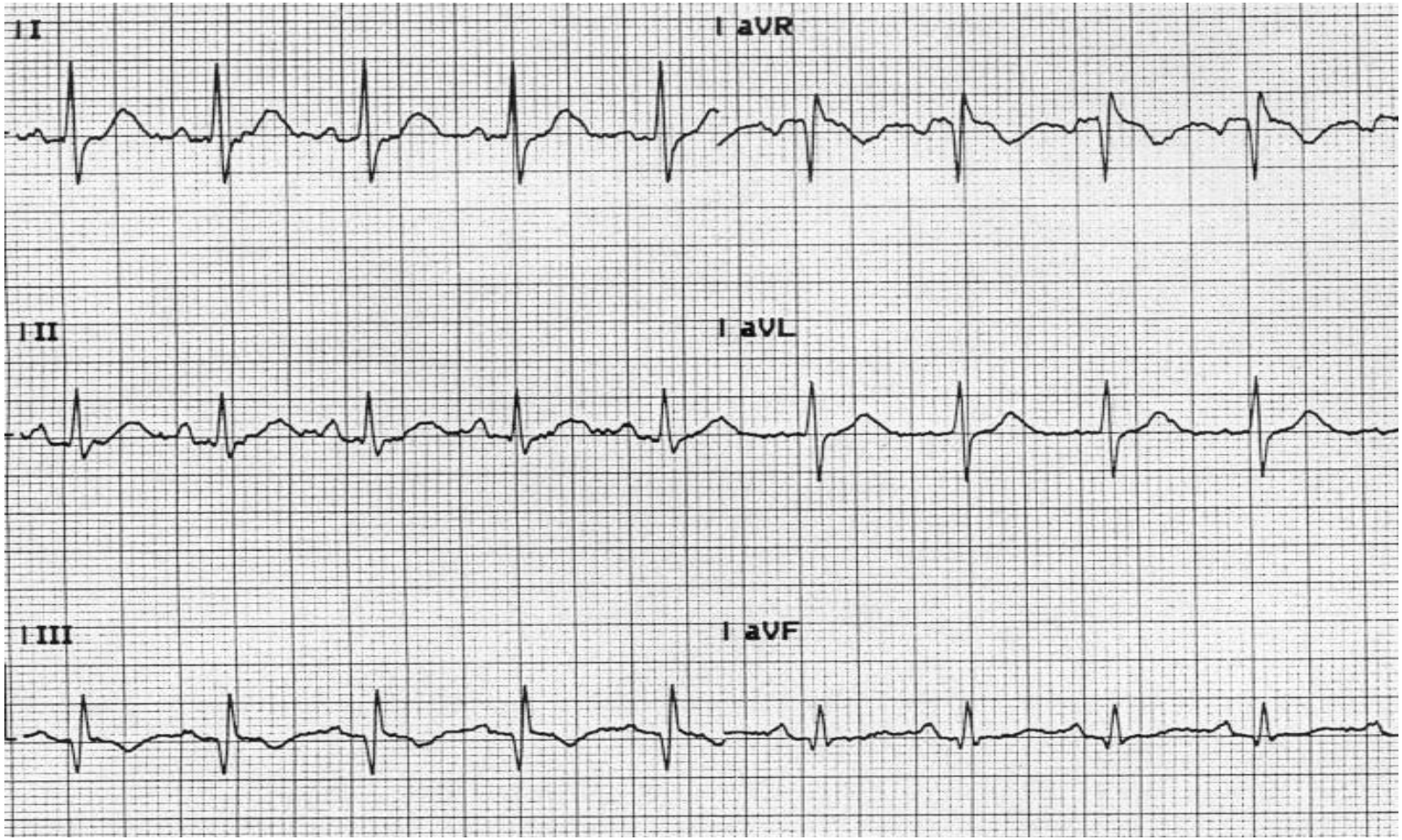
- 1. Risk factors:
  - Virchow's triad: Stasis, Injury to endothelium, Hypercoagulable status
  - Malignancy
- 2. Wells score
- 3. D-dimer, CxR (麻2-14)
- 4. Resting EKG: RAD, **Sinus tachycardia**, S1Q3T3
- 5. Spiral chest CT (C+-)
- 6. Heparin/enoxaparin/NOAC if confirmed
- 7. Thrombophilia workup

Hampton hump and Westermark





S1Q3T3



CV

- 1. 75 M, CC: chest tightness, cold sweating
- 2. 75 M, CC: left shoulder pain, bil. legs weakness
- 3. 75 M, CC: acute onset of dyspnea (IE pt)
- 4. 75 M, CC: difficulty in describing his discomfort/ palpitation
- 5. 75 M, CC: difficulty in describing his discomfort/ mild dyspnea/cold sweating post cath
- 6. 75 M, CC: acute chest pain and then sudden collapse post cath

AMI

1. History (symptoms, risk factors) & PE
2. Resting EKG and CK-MB & troponin-I

Hyperacute T -> ST elevation (Q wave) -> Deep Q -> T inversion -> T回復剩Q
(<10分~數hr) (30mins) (>1-12 hrs) (2-5 days) (數週~數月)

2. Troponin-I (2hr -> 8hrs -> 6 days)

   CK-MB (4hr -> 16hrs -> 3 days)

3. M O N A
   - Aspirin loading 300mg, then 100mg QD
   - Ticagrelor loading 180mg, then 90mg BID
     or Plavix loading 300mg, then 75mg QD
4. Consult the Cardiologist emergently

Acute instent thrombosis

- Post-cath patient complained chest pain!

- Resting EKG, Lab data
- Fluid challenge
- Consult Cardiologist emergently for re-catheterization (直接送導管室)

Cardiac tamponade

- 1. Beck’s triad: distant heart sound, JVP↑, hypotension
- 2. Pulsus paradoxus
- 3. Low voltage or electrical alternans in EKG
- 4. Fluid challenge
- 5. Consult Cardiologist emergently for pericardiocentesis

Rhythm change

- 1. Symptomatic bradycardia (Mobiz type II AV block, complete AV block, junctional bradycardia)
- 2. PSVT
- 3. Af with RVR
- 4. VT/VF

→ 熟記ACLS！

Acute aortic dissection

- 1. History (pattern of pain) & PE
- 2. Resting EKG and CxR
- 3. Emergent chest CT (C +-)/CTA of aorta
- 4. Standford type A and B

  (Type A: Mortality rate: ↑1%/48hrs; Type B:10%/30 days)
- 5. **Target BP 100-120mmHg and HR 60/min**
- 6. Consult the CVS doctor

GI

- 1. 75 M, CC: tarry stool / coffee-ground in NG
- 2. 75 M, CC: bloody vomiting (LC / Esoph. Ca)
- 3. 75 M, CC: bloody stool
- 4. 75 M, CC: sudden onset of abd. pain
- 5. 35 M, CC: sudden dyspnea and chest tightness after severe vomiting
- 6. 40 F, CC: spiking fever and abd. pain
- 7. 40 F, CC: sudden right eye pain (liver abscess)

UGI bleeding

- 1. Keep vital sign; set IV line/CVC
  - Fluid, blood transfusion
- 2. NPO; Check F/S Q6H; IVF glucose (+ RI)
- 3. IV PPI (terlipressin/transamin)
  - 一般 = Pantoprazole/Esomeprazole 2pc stat + 1pc Q12H IVF
  - High dose 2PC Esomeprazole in 100ml NS run 10ml/hr
- 4. Check CBC/DC, PT, aPTT, 備血……
- 5. NG irrigation → check if active bleeding
- 6. When to consult the GI man → **見紅就是consult時機**

本院PPI

	IV	和plavix交互作用	NG	
Pantoprazole	V	+/-?	X	較小顆
Rabeprazole		+/-?	X	較小顆
Esomeprazole	V	+	V	較大顆
Lansoprazole		+/-?	V	較大顆
Dexlansoprazole	GERD			

Nephro

- 1. 75 M, CC: dyspnea (under HD)
- 2. 75 M, CC: palpitation (CKD)
- 3. 75 M, CC: bloody stool (CKD)

Hyperkalemia (麻4-10)

- 1. Resting EKG; check ABG (**Cl !**)
- 2. Hold ACEi/ARB or spironolactone or Baktar
- 3. Calcium gluconate 1pc iv drip >15-20 mins
- 4. Glucose 4pc + RI 8U Q6H x 1 day
- 5. B (terbutaline) inhalation stat
- 6. Jusomine infusion if severe metabolic acidosis
- 7. Kalimate 2pk stat & 1pk tid
- 8. Lasix or Emergent hemodialysis

Emergent HD indication

- A: metabolic acidosis
- E: electrolyte imbalance
  - Severe hyperkalemia (K > 6.5mg/dL or EKG change), hypercalcemia
- I: intoxication
- O: fluid overload (pulmonary edema)
- U: uremia

- Others: SLE with pul. hemorrhage, AIDP, TTP …

Neuro

- 1. 75M, CC: acute onset of left side paraparesis
- 2. 75M, CC: acute onset of slurred speech or drooling from right mouth angle
- 3. 75M, CC: acute generalized convulsion
- 4. 75M, CC: drowsy consciousness
- 5. 75M, CC: severe headache
- 6. 75M, CC: acute back pain and right leg weakness

Acute stroke

- Keep vital sign stable
- Basic lab data, prepare blood
- Intubation if GCS ≤ 8
- Emergent brain CT (C-)
- Consult the Neurologist/NS emergently after brain CT
- Indication of rt-PA - **NIHSS**
  - 發病3小時內

Acute ischemic stroke

- Bed rest
- N/S, aspirin
- SBP < 180-105 mmHg

Acute seizure

- 1. Keep ABC
- 2. Valium or Ativan 1-2pc iv push stat
- 3. O2 mask; oximeter monitor and observe the breath pattern; intubation if necessary
- 4. Brain CT (C-) if **new onset** of seizure (survey the etiology)

Anticonvulsants

- Phenytoin (Dilantin) loading 10~15mg/kg + 100mg Q8H, in N/S 100cc IVD> 30mins – 腎不好小心
  - 用albumin level 校正drug level
  - 監測: peak- loading後2小時，though- 6-7天後，給藥前30min
  - 給藥/改劑量一周後穩定
- Valproic acid (Depakin) loading 10~15mg/kg + 400mg Q8H, in N/S 50cc IVD> 30mins – 肝不好小心，小心 thrombocytopenia
  - 監測: peak- loading後2小時，though- 2-4天後，給藥前30min
  - 給藥/改劑量一周後穩定
- Levetiracetam (Keppra) loading 1g + 500~1500mg Q12H, in N/S 100cc IVD> 15mins (if eGFR<30: 500mg Q12H)

Consciousness change

- 1. Keep vital sign stable
- 2. Check F/S; ABG, electrolytes……
- 3. **AEIOU TIPS**

  Alcoholism

  Electrolytes: Na, Ca↑, Mg↓

  Ischemia/Infection

  Opioids(drug)/Hypoxia

  Uremia/hepatic

  Trauma

  Insulin: sugar, thyroid, adrenal

  Psychogenic

  Seizure/Syncope

Hypercalcemia

- 1. Aggressive IVF hydration
- 2. +/- Lasix 1PC Q6-8H if fluid overload
- 3. Bisphosphonates or Calcitonin (健保規範)

Meta

- 1. 75 M, CC: finger stick show high
- 2. 75 M, CC: conscious change

DKA/HHS

- 1. Check serum sugar, Osmolality, ABG, Na, K, ketone, Cl
- 2. RI 6U IV st (0.1u/kg)
- 3. IVF(1)：N/S 1000mL run 80~1000mL/hr
- 4. IVF(2)：RI line → N/S 100mL + RI 100u run 6mL/hr (0.1u/kg/hr)
  - Adjust according to F/S
- 5. Check F/S Q2H
- 6. Check Na/K/ABG Q6H
- 7. Add KCl 20-30meq in IVF(1) if serum K <5.2

Rheuma

- 1. 42 F, CC: hemoptysis (SLE)
- 2. 42 M, CC: sudden onset of right knee pain/ swelling

Acute gouty arthritis

- 1. NSAID: 須注意腎功能

  (a) Indomethacin 50mg tid x 2 days, then 25mg tid x 3 days

  (b) diclofenac
- 2. Colchicine: 2pc po stat and 1pc TID
- 3. Oral steroids:

  (a) Prednisolone 30mg (1pc TID) po x 5 days

  (b) Prednisolone 30-60mg x 2 days

Hema/Oncology

- 1. 70 M, CC: fever (AML, C/T 8 days before)
- 2. 70 M, CC: conscious change (H&N cancer)
- 3. 70M, CC: sudden onset of bilateral legs weakness (prostate cancer)
- 4. 70M, CC: conscious change and dyspnea (ALL)
- 5. 70M, CC: high fever, seizure, multiple petechiae
- 6. 70M, CC: hemoemesis, tumor bleeding

Febrile neutropenia

- 1. Definition: fever + neutropenia
  (ANC < 500 or ANC預期會<500 in 48hrs)
- 2. (a) Blood culture x II (+抽其他血)
  (b) CxR and U/A & U/C
  (c) Antibiotics selection:
    - Piperacillin + Amikacin
    - Tazocin
    - Cefepime or Brosym
    - Tienam or Meropenem

P. a !!

Spinal cord compression

- 1. Urgent MRI/CT (急聯絡X光科急診櫃台)
- 2. Call the Radiologist for MRI/CT finding
- 3. Dexametasone (5mg) 4pc stat & 1pc Q6H iv
- 4. Informed VS
- 5. May consult the NS doctor emergently for evaluation of surgical decompression

Tumor lysis syndrome

- 1. Acute kidney injury
- 2. (Metabolic acidosis)
- 3. Hyperkalemia, Hyperphosphatemia
- 4. Hyperuricemia => Rasburicase
- 5. **Hypocalcemia**

- Aggressive Hydration, **Consider H/D**

情境一

醫師，病人看起來很喘，一分鐘大概3,40下~

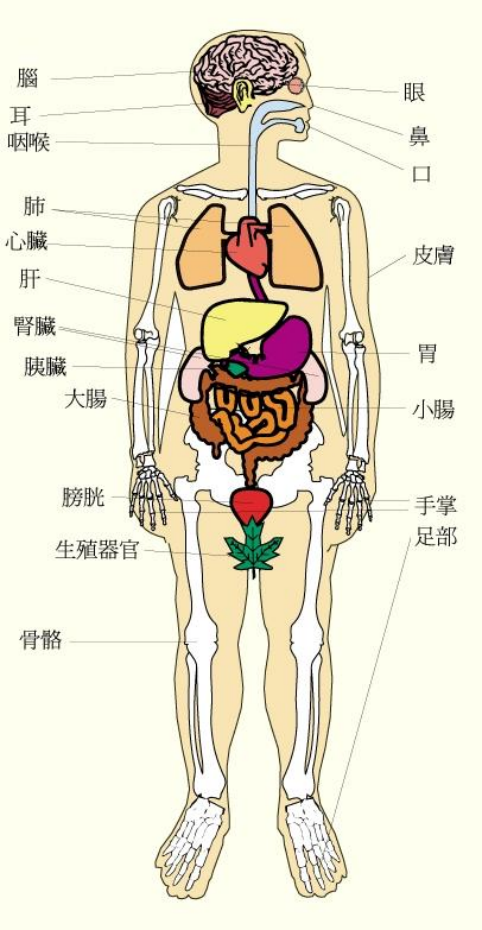
醫師的脊髓反射

- 請護理師量vital sign
- 立即起床，去看病人
- **評估是否已需插管**
- 可同時請RT量oximeter
- Blood gas 可提供很多資訊

想到哪些

- Airway obstruction
  - 痰太多？ ➔ 抽痰
- Lung problem --Breathing sound, CXR
  - Pneumonia? ➔給Antibiotics
  - Fluid overlaod? ➔給lasix
  - ARDS? ➔插管? 給abx
  - Pulmonary embolism?

  ➔ check D-dimer, 急做CT
  - Pneumothorax? ➔插胸管



想到哪些

- Metabolic acidosis
  - 抽blood gas判讀
  - **pH<7.2** 就非常危險了

注意事項

- 老人家很喘，即使O2還勉強撐住，久了還是會呼吸肌無力而failure，該插管還是得插管，若堅持不插管該考慮DNR
- “當腦海浮現是不是要插管時，就是要插管了”

- 喘不要只會往上調O2
  - CO2 retention時， 給的O2越高，CO2越容易累積
  - 代謝酸造成的呼吸代償，給O2是沒用的

情境二

醫師，病人血壓很低，
大概80/50

醫師的脊髓反射

- 評估是否真的是shock
  - 查病人之前血壓大約多少，看是否真的低
  - Consciosness, urine output……
- 去看病人！是否有toxic sign?

BP真的低！真的是shock！

- 找原因與治療同時進行
  - Septic shock → Fever?
  - Hypovolemic shock → 有沒有哪裡active bleeding?
  - Cardiogenic shock →胸悶胸痛?

先頂一下

- Fluid challenge
  - N/S challenge 200(H/D, HF)/300-500ml
  - 洗腎病人/心衰竭病人怎麼辦?
- 升壓劑
  - Dopamin 4PC in N/S 500 ml run 20cc/hr, +/- 2cc/hr to keep SBP> 90mmHg
  - Levophed 4PC in D5W 500 ml run 20cc/hr, +/- 2cc/hr to keep SBP> 90mmHg

治療可能原因

- Septic shock
  - Fluid challenge (往往需>2-3000ml)
  - 抽血: B/Cx2, infection focus survey……
  - 給antibiotics

- Cardiogenic shock (Exclude AMI first!)
  - Chest pain?
  - Do EKG, cardiac enzyme
  - 周邊水腫? JVE/CVC level? Heart failure sign?

治療可能原因

- Hypovolemic shock
  - Blood loss?
    - GI bleeding, HCC rupture
    - Severe diarrhea, 脫水脫太乾
  - Fluid challenge
  - 抽血備血
    - Blood transfusion if needed
  - Bleeding control

情境三

醫師，病人發燒到38.5C

醫師的脊髓反射

- 請護理師量vital sign
- 這幾天本來就有發燒嗎?有無使用抗生素?最近有換抗生素嗎?

- 去看病人，尋找可能的infection focus?
- 是否是感染造成?

最近沒燒

- 重新evaluation
  - Blood culture x2
  - Urine culture, sputum culture
  - U/A, sputum Grain stain, Chest X ray
  - CBC/DC, CRP, BUN/Cr……
  - 身上有無Catheter/wound
- 考慮加上抗生素

注意事項

- 看是否有toxic sign很重要
- 不要只開scanol退燒
- 血液腫瘤科病人發燒請務必注意是否剛打完化療或長期neutropenia
  - 直接開後線抗生素– Tazocin, Cefepime, Tienam
- 給antibiotics前要先抽blood culture

情境四

醫師，病人解黑便

醫師的脊髓反射

- 請護理師量vital sign
  - 除了BP之外，HR也非常重要！
- 去看病人

處理原則

- Keep vital sign 優先
  - set IV line/CVC
  - Fluid challenge
  - 抽血備血，輸血 if needed
- 黑便 → favor UGI bleeging
  - NPO, 給glucose
  - 給IV form PPI
- 鮮紅便 → favor LGI bleeding/大量UGI bleeding

注意事項

- Liver cirrhosis 的病人務必注意EV bleeding，若吐鮮血必急call GI做胃鏡
- 一般UGI bleeding 可考慮**on NG** decompression, 監測coffee ground量, 但liver cirrhosis 要注意EV rupture

UGI bleeding 套餐

- NPO except drug
  - (On NG and decompression)
  - (NG irrigation)
- IVF: NS/D5S/D5W 1000ml (+ KCl 20meq)
- Check F/S Q6H
- Glucose 50% 4PC q6h (+ RI)
- Pantoprazole/Esomeprazole 2PC stat and 1PC q12h
  - High dose PPI:
    - Pantoprazole/Esomeprazole 2PC in N/S 100ml run 10cc/hr
- Terlipressin 1 pc st & 1PC Q6H (suspect EV bleeding)

GI bleeding 套餐

- Check Hb (stat or later)
  - 急性期Hb不一定已經下降
  - Platelet, (CBC/DC), PT/APTT, 備血
- Blood transfusion PRN

- 評估是否需急做胃鏡
  - check if active bleeding: NG irrigation
  - **見紅就是consult GI時機**

情境五

處理

- 請跟家屬說晚上只有值班醫師，僅處理緊急情況，無法詳細解釋病情，是否可白天請當科解釋
- 恕不能電話解釋病情
- 我在忙，跟他說晚一點過去

常用line泡法

藥物	本院常見使用方法
Dopamine (200mg/5ml/amp)	**4pc in 500ml NS/D5W (1ml = 1600mcg) run ___ml/hr, +/- 2ml keep SBP>90mmHg (max 45~50ml/hr)** 註: >20mcg/kg/min建議換/加levophed
Levophed (Norepinephrine) (4mg/4ml/amp)	**4pc in 500ml D5W (1ml = 32 mcg) run ___ml/hr, +/- 2ml keep SBP > 90mmHg (max ~50ml/hr)**
Heparin (25000U/5ml/amp)	**5000u IVP then 20000u in 500ml NS run 14~16ml/hr +/- 2ml keep APTT 1.5~2 times** (ACT: 200~250s for CVVH, 180~200s for ECMO)
Amiodarone (150mg/3ml/amp) (Class III)	**1pc in 100ml D5W drip >5~10mins then 6pc in 500ml D5W (1ml = 1.8mg)run 34ml/hr*6hr then 17ml/hr to end** (hold if HR<60~65) (then PO amiodarone 200mg/tab 1pc qid~bid use if need)
Esomeprazole (Nexium) (40mg/vial)	**2pc in 100ml NS run 10ml/hr for 3 days** (可配2pc once loading; 也可用1pc Q12H IV)
Regular insulin (1000U/10ml/vial)	**50U in 500ml NS (0.1U/ml) or 100u in 100ml NS (1U/ml) run 0.05~0.1U/kg/hr first**(No max dose) (Hold first if low K)

關於DNR

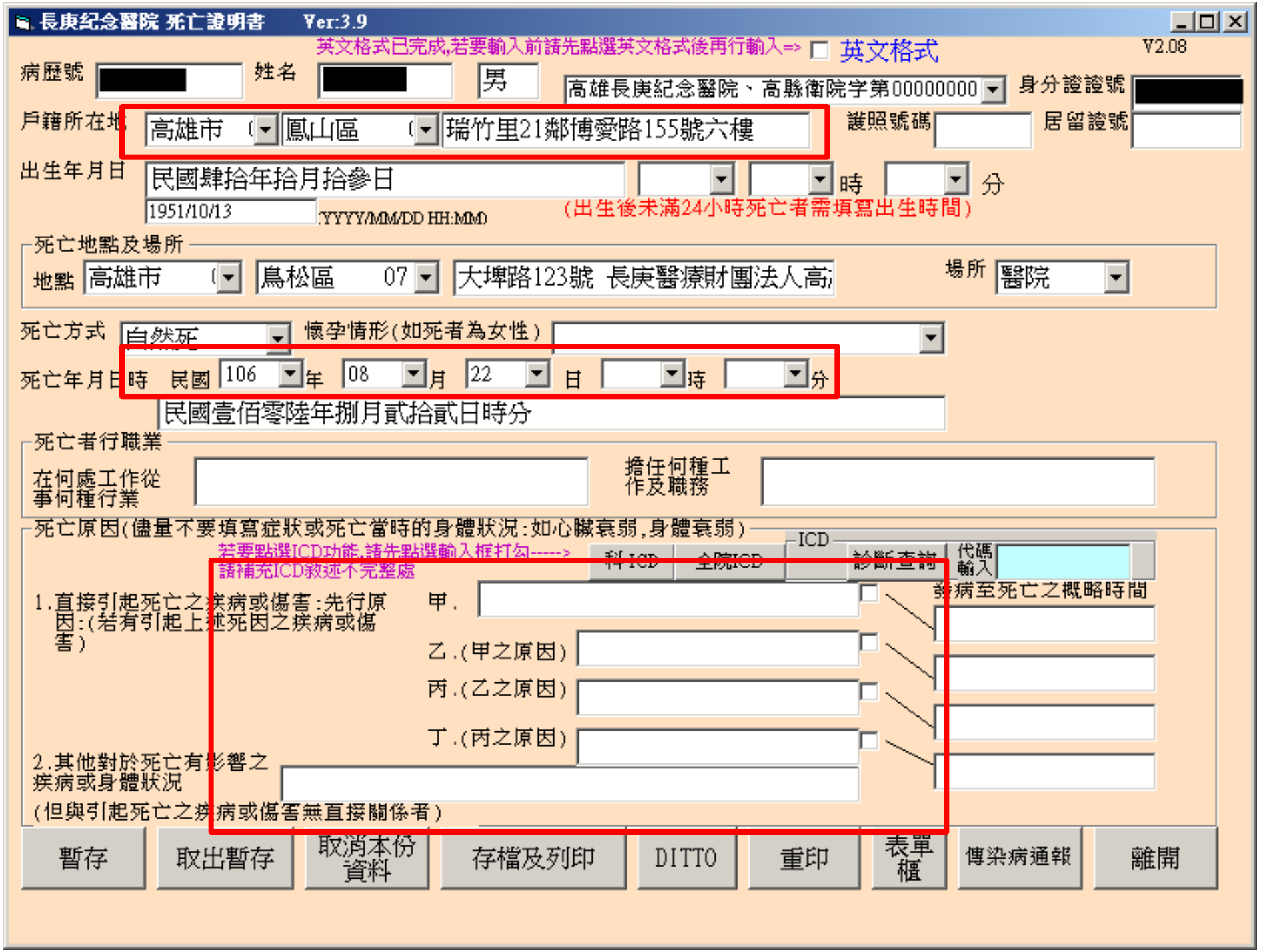
- 簽好後僅用於：**臨終/瀕死**
- **簽DNR不等於萬事OBS**
- **要談就談全拒**(急救藥、插管、壓胸、電擊)
- Order: DNR 1,2

- 標準流程：末期診斷- 家庭會議- Sign DNR

值班突發狀況
時開這個就好

病人要去當天使了

- Critical AAD – 僅可開立乙診
- Expired – 死診 (+乙診)
  - **開死診請家屬先拿病人身分證來**(核對地址用)
  - 新式地址


長庚紀念醫院 死亡證明書 Ver:3.9
英文格式已完成,若要輸入前請先點選英文格式後再行輸入=>
英文格式
V2.08
病歷號
姓名
男
高雄長庚紀念醫院、高縣衛院字第00000000
身分證證號
戶籍所在地
高雄市
鳳山區
瑞竹里21鄰博愛路155號六樓
護照號碼
居留證號
出生年月日
民國肆拾年拾月拾參日
時
分
1951/10/13
YYYY/MM/DD HH:MM
(出生後未滿24小時死亡者需填寫出生時間)
死亡地點及場所
地點
高雄市
鳥松區 07
大埤路123號 長庚醫療財團法人高
場所
醫院
死亡方式
自然死
懷孕情形(如死者為女性)
死亡年月日時
民國
106
年
08
月
22
日
時
分
民國壹佰零陸年捌月貳拾貳日時分
死亡者行職業
在何處工作從事何種行業
擔任何種工作及職務
死亡原因(儘量不要填寫症狀或死亡當時的身體狀況:如心臟衰弱,身體衰弱)
若要點選ICD功能,請先點選輸入框打勾----->
請補充ICD敘述不完整處
ICD
科ICD
全院ICD
診斷查詢
代碼輸入
發病至死亡之概略時間
1.直接引起死亡之疾病或傷害:先行原因:(若有引起上述死因之疾病或傷害)
甲.
乙.(甲之原因)
丙.(乙之原因)
丁.(丙之原因)
2.其他對於死亡有影響之疾病或身體狀況
(但與引起死亡之疾病或傷害無直接關係者)
暫存
取出暫存
取消本份資料
存檔及列印
DITTO
重印
表單櫃
傳染病通報
離開

「死因」欄之填寫實例：

例1：可能病因鏈因果次序：跌落→股骨頸骨折→嚴重之褥(壓)瘡→敗血症→死亡。

		發病至死亡之概略時間
（十一）死亡原因：（儘量不要填寫症狀或死亡當時之身體狀況；如心臟衰竭、身體衰弱）		
1.直接引起死亡之疾病或傷害：	甲、**敗血症**	3天
先行原因：（若有引起上述死亡之疾病或傷害）	乙、（甲之原因）**嚴重之褥瘡**	3個月
	丙、（乙之原因）**股骨頸折斷**	4個月
	丁、（丙之原因）**在家內由樓梯上跌落**	4個月
2.其他對於死亡有影響之疾病或身體狀況：（但與引起死亡之疾病或傷害無直接關係者）**骨質疏鬆症**		

例2：可能病因鏈因果次序：糖尿病→高滲透性非酮酸昏迷→急性腎衰竭→死亡。

		發病至死亡之概略時間
（十一）死亡原因：（儘量不要填寫症狀或死亡當時之身體狀況；如心臟衰竭、身體衰弱）		
1.直接引起死亡之疾病或傷害：	甲、**急性腎衰竭**	5天
先行原因：（若有引起上述死亡之疾病或傷害）	乙、（甲之原因）**高滲透性非酮酸昏迷**	8天
	丙、（乙之原因）**糖尿病—非胰島素依賴型**	15年
	丁、（丙之原因）_____	
2.其他對於死亡有影響之疾病或身體狀況：（但與引起死亡之疾病或傷害無直接關係者）**高血壓、粥樣硬化性冠狀動脈疾患**		

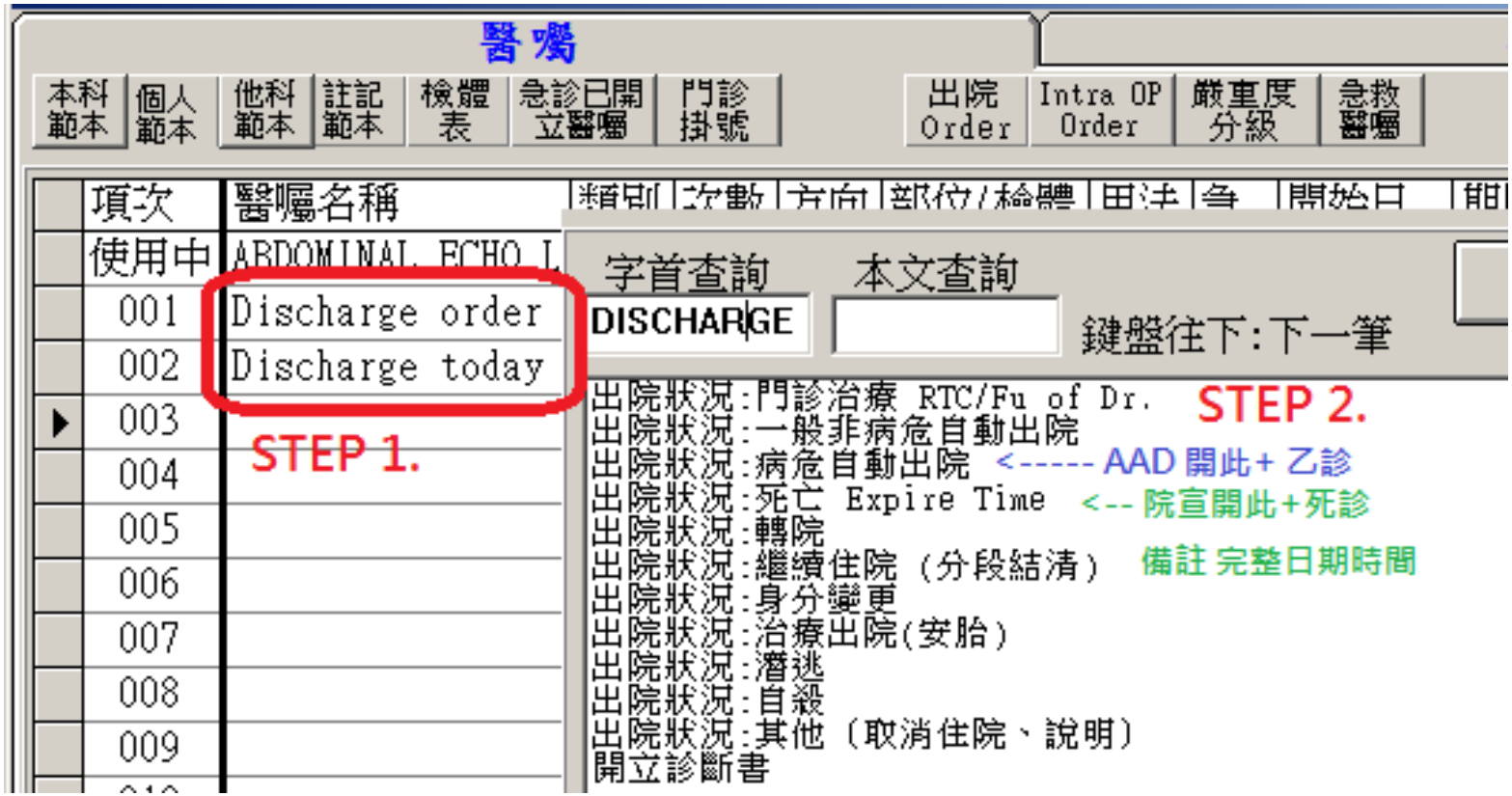
病人要去當天使了

- 死診印出紙本後請在「醫師姓名、證書字號」處簽名蓋章
  - 若還不能開死診的話，開完後請總值學長姐簽名蓋章

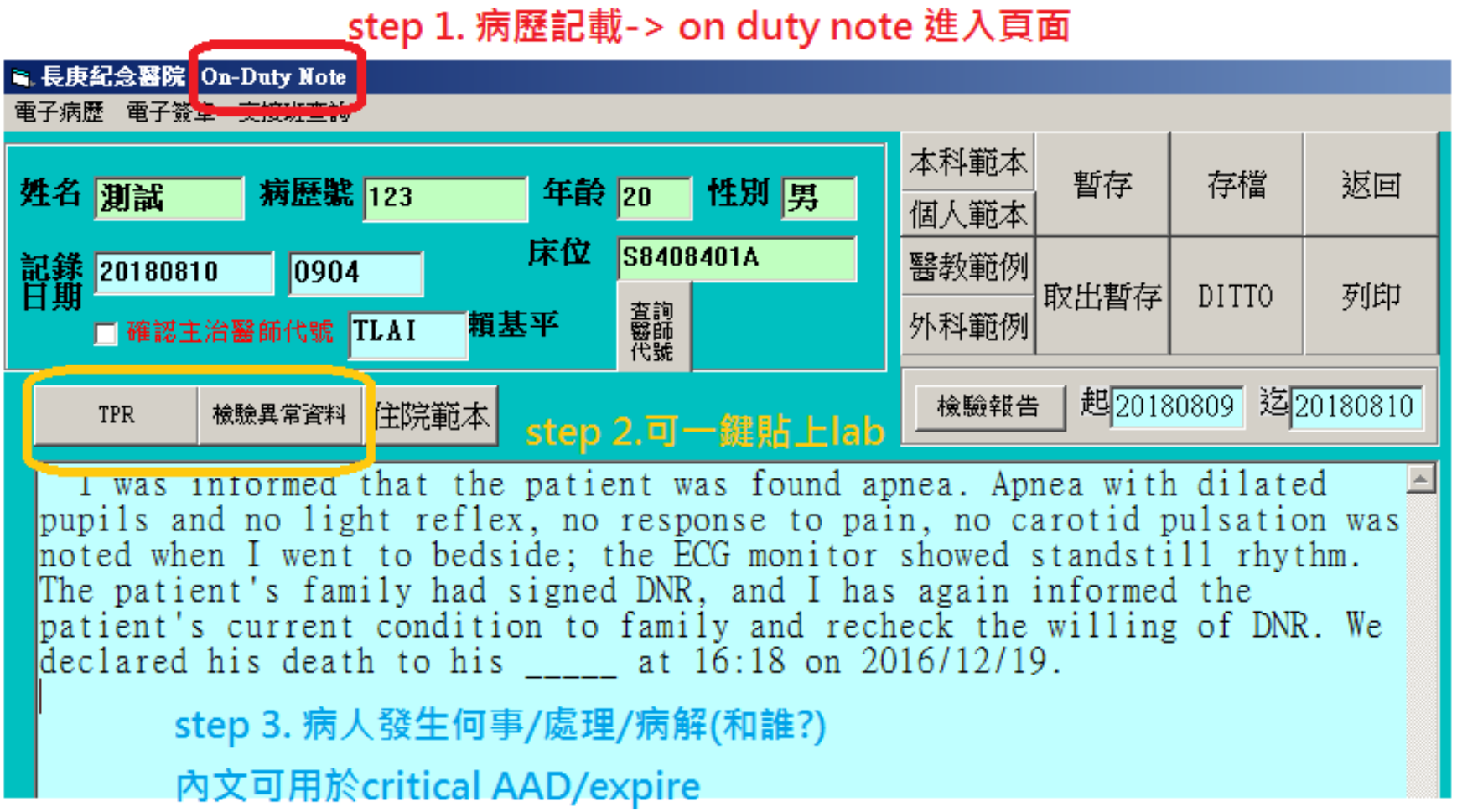
- 最下方寫上日期(年月日)

病人要去當天使了

- Order
  - 開立死亡證明書、(開立診斷書)
  - Remove 管路



- **務必留 Duty note 保護自己**
  - 突然Downhill的情形?有CPCR嗎?過程?成功嗎?
  - 和病人的誰解釋? 可接受嗎?



- **Order/診斷書開立不熟悉請call總值!!**

(要開死診請先備好身分證)

- **不能開的情況!!**

(一)非病死的範圍

**** 中毒/自殺/OHCA(進急診時檢傷Vital sign為0者).....**

非病死之範圍，包括各種中毒、非病因性之休克或窒息、自殺、他殺、墜樓、電擊、火災、溺水、車禍、動物或昆蟲螫咬或其他人為等原因致死者；食物、藥物過敏致死，食物、藥物中毒致死，**酒醉嘔吐引致胃內容物阻塞呼吸道窒息死亡**，蜜蜂、火蟻螫傷致死及毒蛇咬傷致死，均屬非病死。（97.08.26 衛署醫字第 0970081171 號函）

注意病人的腎功能~電腦可以幫忙計算

結語

- 新的開始，新的挑戰

任何無法自己處理的狀況，請不要害怕call總值！

比誰找得快

祝大家學習愉快，值班順利！