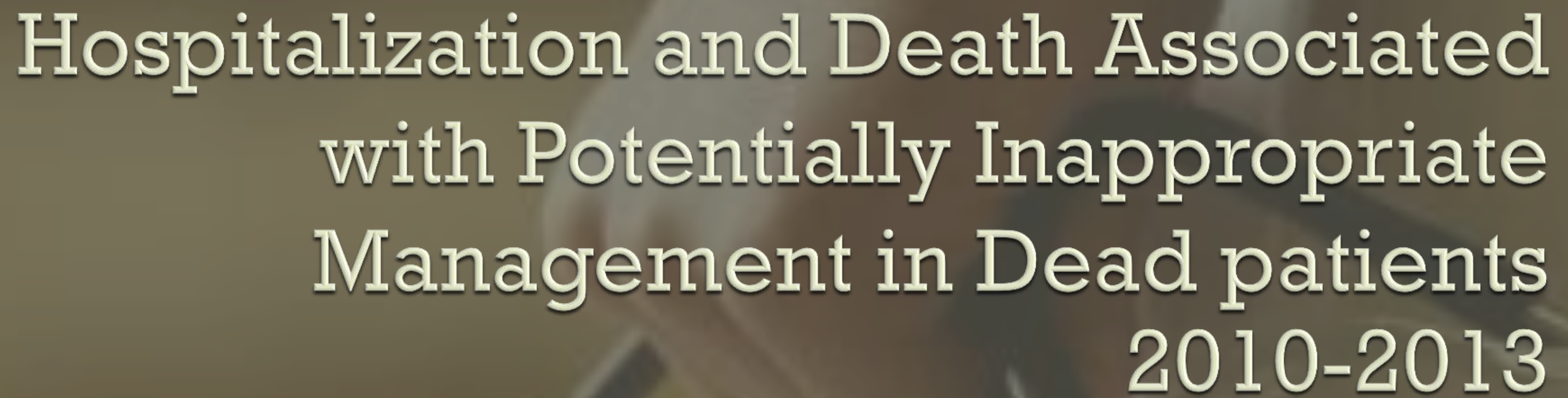


By
Ext. Pichaphob Bannern
Ext. Thanita Sangmanee

BACKGROUND

BACKGROUND

- The increase of pitfalls in management of patients often increase the confliction of doctor and patient. One of them may due to the lack of resources and the experiences of people in medical service.

BACKGROUND

- The data review is one of the strategies to find out the inappropriate management in any case.
- The potentially harmful management is the reason to study in the death patients.

BACKGROUND

- Find out the inappropriateness in management can help the medical care team to improve the quality of management and also in safety care, moreover, may encouraged them to update the new trend of management.

จำนวนตายผู้ป่วยใน

เดือน/ปี	ต.ค.	พ.ย.	ธ.ค.	ม.ค.	ก.พ.	มี.ค.	เม.ย.	พ.ค.	มิ.ย.	ก.ค.	ส.ค.	ก.ย.
2553	5	5	2	5	6	5	5	2	6	6	7	7
	0.97	0.96	0.41	0.95	1.1	1.1	1.01	0.42	1.2	1.4	1.53	1.51
2554	5	4	7	4	6	4	6	2	11	4	7	7
	1.18	1.04	1.99	1.13	1.66	1.42	1.67	0.62	2.55	1	1.6	1.49
2555	11	5	2	2	4	3	3	9	6	5	4	6
	2.34	1.01	0.49	0.44	1.05	0.75	0.75	2.17	1.39	1.07	0.84	1.47
2556	3	4	7	7	6	10	1	5	1	4	3	4
	0.67	1.02	1.97	1.78	1.83	2.61	0.26	1.27	0.24	0.87	0.66	0.91

13 พ.ย. 2556

วาราภรณ์.

น.ส.วราภรณ์ ชั้นศิริ

เจ้าพนักงานสถิติ

OBJECTIVE

Aim of the study

- For summarizing the cause of death associated with potentially inappropriate management of inpatients in SOIDAO Hospital in 2010-2013
- To continue the study of inappropiate management of inpatients in SOIDAO Hospital

Populations

- Hospitalized patients in all age group who have discharge status as ‘Dead Autopsy’ OR ‘Dead non Autopsy’ in SOIDAO Hospital during 2010-2013.

Outcome

- Identified inappropriate management in each dead cases ,those fulfiled criteria for inclusion.

MATERIAL AND METHODS

Data sources

Search methods for identification of cases

- Data base of SOIDAO Hospital:
  - Search condition:

  ‘discharge type = Dead Autopsy’ OR

  ‘discharge type=Dead Non Autopsy’
- IPD cards of SOIDAO hospital

Selection criteria

Criteria for considering cases for inclusion

- Hospitalized patients of Soidao Hospital
- Discharge status is 'Death' in 2010-2013

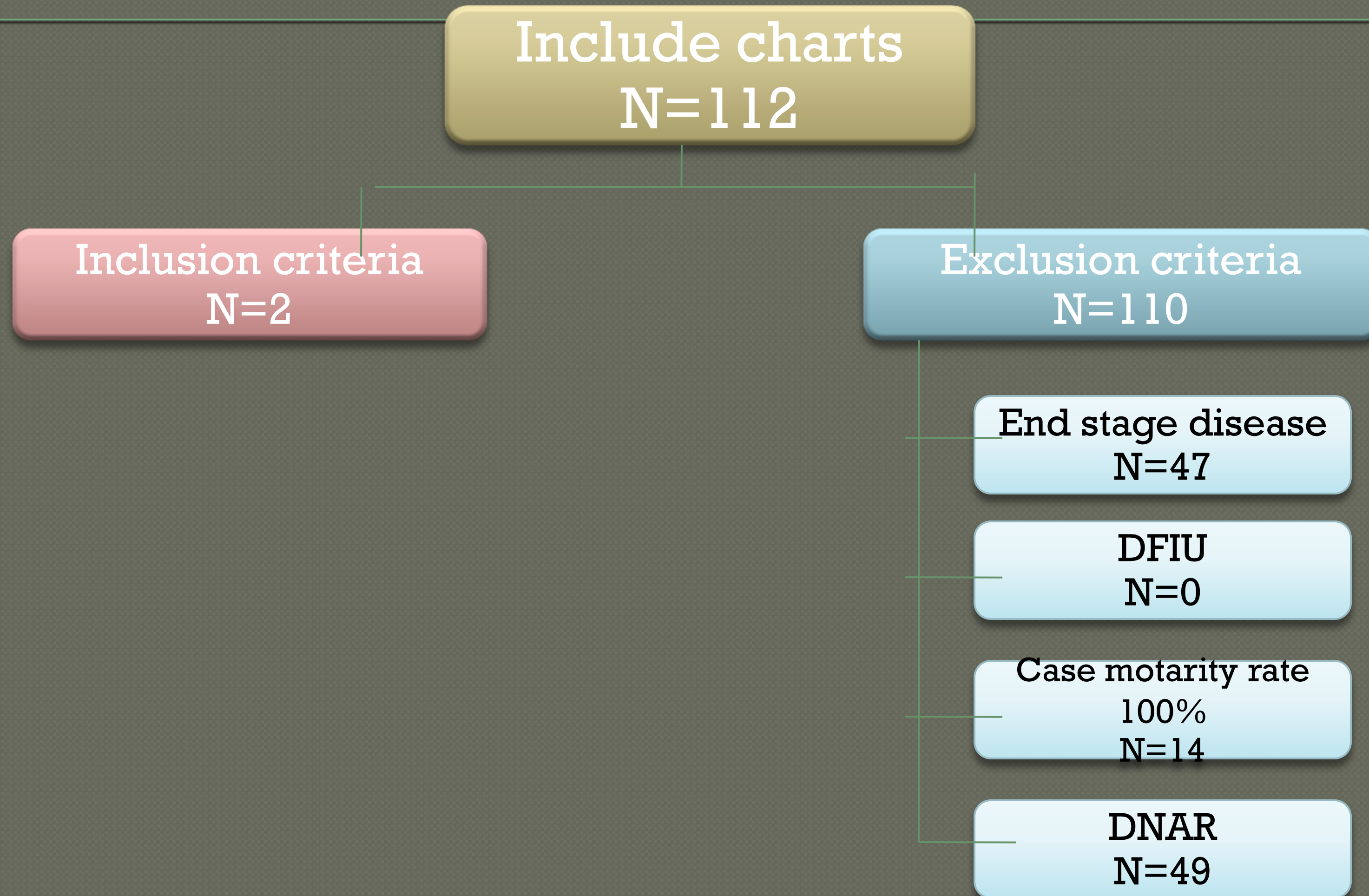
Selective criteria

Criteria for considering cases for exclusion<only one>

- End stage disease
- Death fetus in Utero
- Case-Motarity rate 100%
- DNAR<include no further management and have to signed in consent form>

RESULTS

Results



CASE DISCUSSION

Case 1

Principle Disease

- ATRIAL FIBRILLATION

COMORBIDITY:

- CARDIOGENIC SHOCK

COMPLICATION:

- HYPOGLYCEMIA
- CARDIAC ARREST

Case1

HISTORY

CC:เหนื่อย แน่นหน้าอก 15 ชม.ก่อนมา

PI:15 ชม.ก่อนมา เหนื่อย แน่นหน้าอก ปวดต้นคอ ปัสสาวะไม่ออก

PH:AF ไม่ขาดยา on

- Propanolol (10)1x3 po pc
- Diazepam(2)1xhs prn
- Digoxin0.25 1x1
- ASA (300)1x1

Case1

Physical examination:

V/S :BP 60/30mmHg BT 36.8 RR32 PR 171

HEENT:WNL

HEART: totally irregular heart rate

LUNGS:WNL

ABD:WNL

GU:WNL

EXTREMITIES:WNL

NERVOUS:WNL

Case 1

Problem list

1. Chest pain
2. Arrhythmia---EKG:Atrial fibrillation
3. hypotension

REST-ECG

ID=000000011332
Sex=MALE
Age= 71yr
Ht= cm Wt= kg

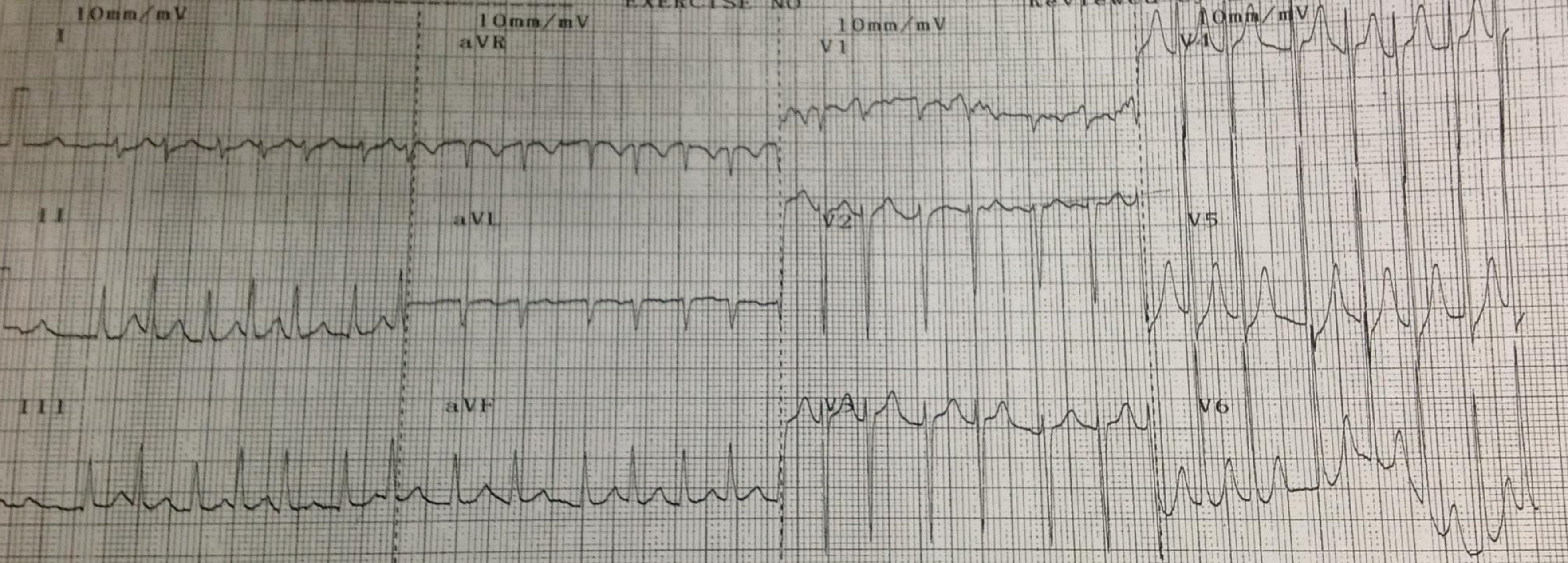
Name
HR = 178 bpm 871-6 ATRIAL FIBRILLATION
R-R = 337 ms 205-2 RIGHT AXIS DEVIATION
P-R = **** ms 111-0 * UNSATISFACTORY RECORD
QRS = 86 ms
QT/QTC = 293/505
AXES P = 90 deg
QRS = 93 deg
T = 56 deg
RV5/SV1=2.61/0.43
RV5+SV1= 3.04 mV 8-3-2,3-1-2,9-4-2,2-3,9-8-4

beat=20
**Unconfirmed report:RR ?
ST-T & Q WAVE FOR AF

ABNORMAL
EXERCISE NO

Comment

Reviewed by



II 25mm/S

[FCP4101-M6] Filter:AC, Muscle, Drift

Case 1

Order one day	Order continue
◉0.9% nacl iv load 1000 ml then rate 120 ml/hr ◉HR q 1 hr if >120 p/s notify ◉v/s q 2 hr if <90/60 p/s notify ◉Cardioversion 100 j ◉Valium 5 mg iv ◉TSH,FT3 ◉Digoxin 0.25 mg iv	◉Soft diet Med ◉propanolol(10) 1x3 ◉digoxin(0.25) 1/2x1

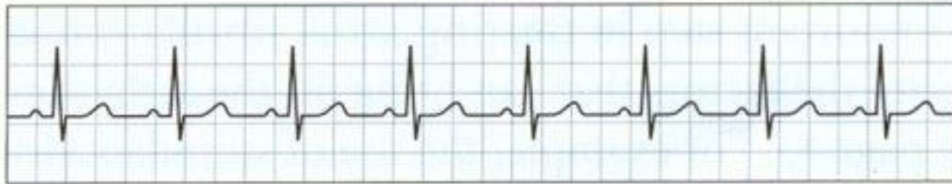
Case 1

ORDER ONE DAY	ORDER FOR CONTINUE
• P=170/MIN bp50/20 LOAD 0.9%NSS 500 ML • P=166/MIN RR=28/MIN BP60/20 LOAD 0.9%NSS 500 ML iv IF bp>80/60 THEN 120 ml/hr • P=168/min RR= 28 BP=80/40 OBSERVE อาการ	

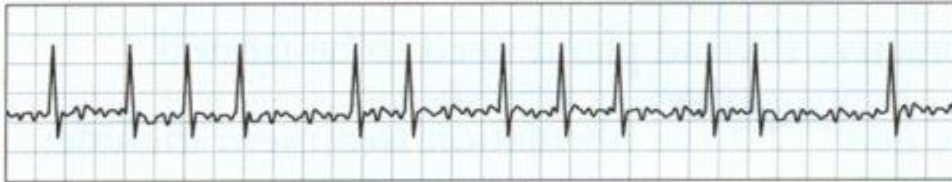
Case 1
ขณะ arrest

ORDER FOR ONE DAY	ORDER FOR CONTINUE
◉ DTX low ◉ 50%glucose 50mg ◉ CPR ◉ ETT NO 7.5 depth 21	

Case1

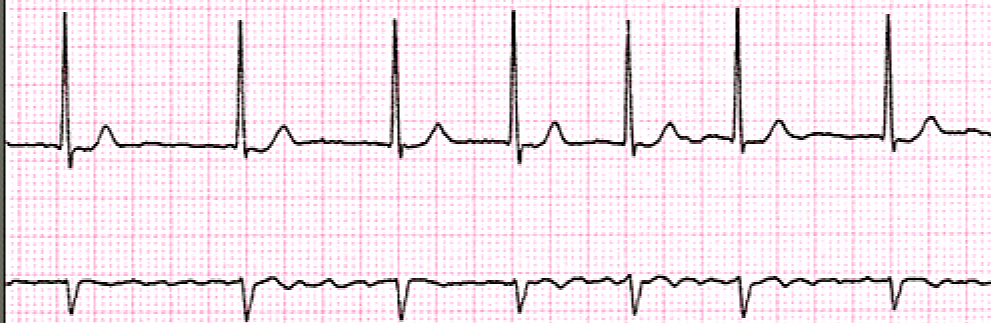


ECG tracing of a normal heart rhythm.



In atrial fibrillation, the tracing shows tiny, irregular "fibrillation" waves between heartbeats. The rhythm is irregular and erratic.

Atrial Fibrillation



Heart Rate	Rhythm	P Wave	PR interval (in seconds)	QRS (in seconds)
A: 350-650 bpm V: Slow to rapid	Irregular	Fibrillatory (fine to course)	N/A	<.12

Case1

Table 1. Etiology Of Atrial Fibrillation.

Cardiac	Non-cardiac
• Ischemic heart disease	• Pulmonary embolism
• Valvular disease	• Idiopathic
• Hypertension	• Medication noncompliance
• Congestive heart failure	• Thyroid disease
• Sick sinus syndrome	• Holiday heart syndrome
• Pericarditis	• Medication use
• Infiltrative heart disease	• Electrocution
• Cardiomyopathy	• Other pulmonary disease
• Cardiac surgery	• Chest trauma
• Myocarditis	• Hypokalemia
• Congenital heart disease	• Hypomagnesemia
	• Hypothermia

Case 1

Atrial fibrillation with fast ventricular response

Haemodynamically stable?

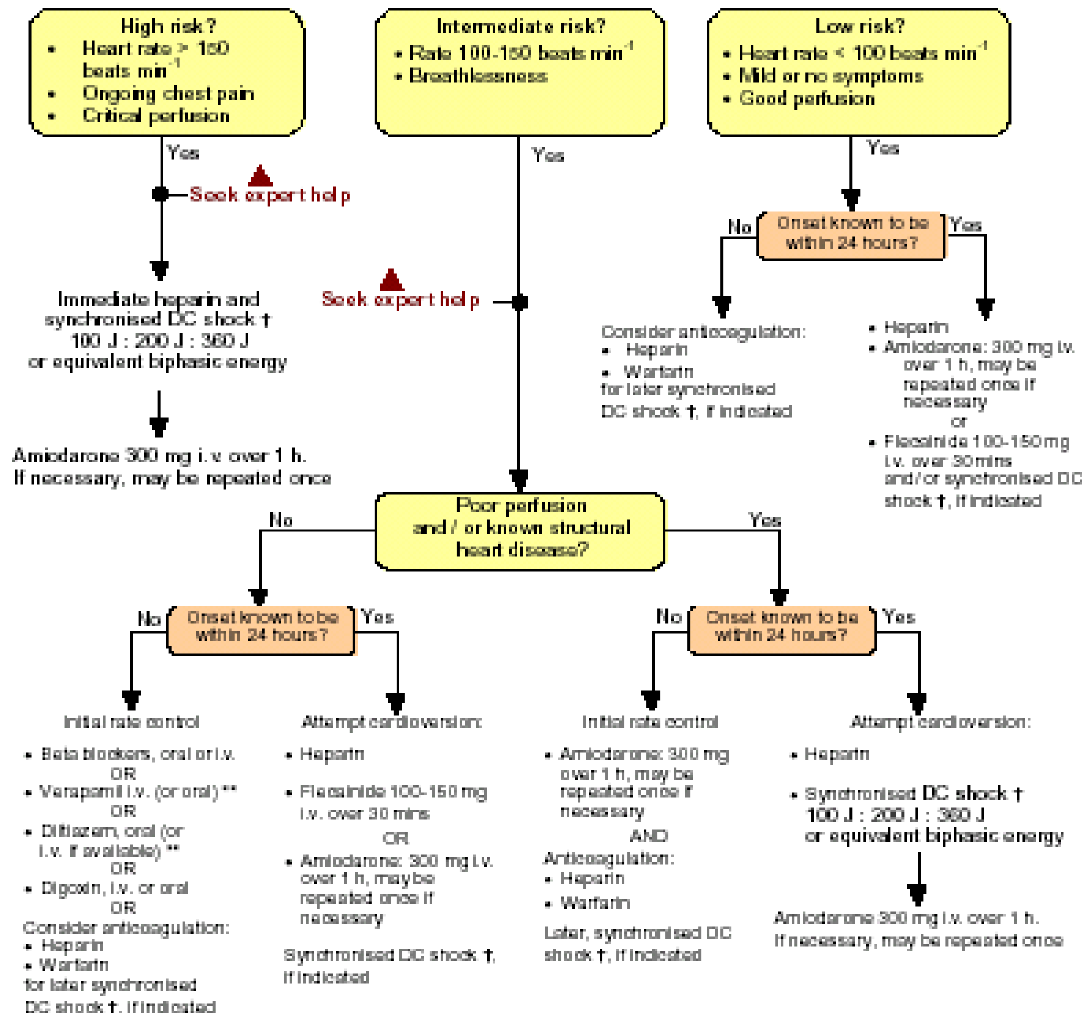
No → +/- Contact Cardiology →
- Heparinise
- Electrical cardioversion

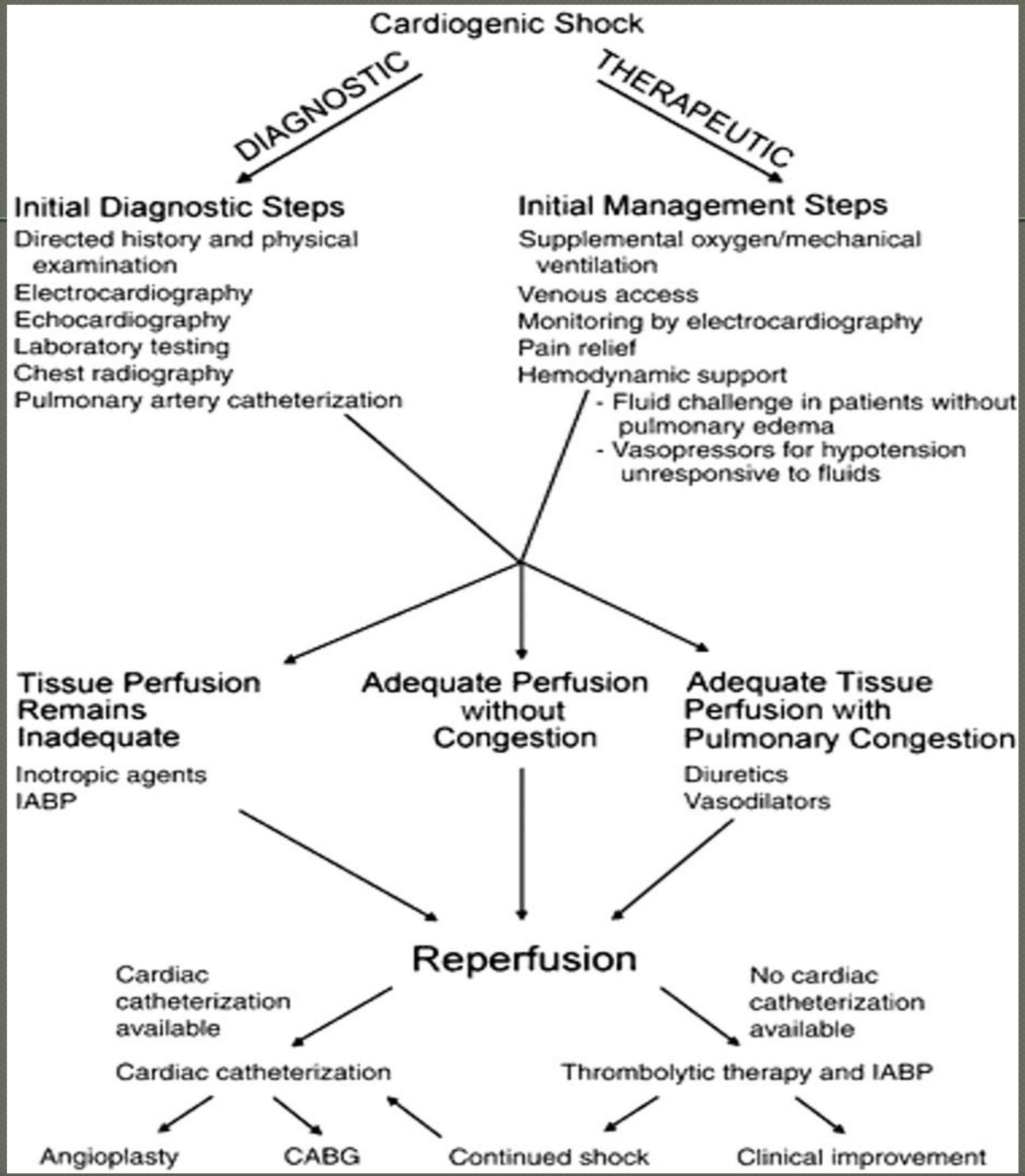
Yes ↓

1. Treat underlying cause
2. Anticoagulate
3. Rate control
   - » Metopralol 2.5mg iv bolus, repeat q 20mins, titrate to BP.
   - » Aim for HR reduction of 30%.
   - » Concomitant give Bisopralol 5mg po od.
   - » Repeat iv Metopralol as necessary.
   - » Substitute with Verapamil 2mg iv and Diltiazem 120mg po in asthmatics.
4. Rhythm control
   - » Consider if AF < 48hrs duration.
   - » If normal LV fxn and no coronary disease, use Flecanide 100mg po. (Consider Ibutilide as an alternative after Mg loading 1g/20mins).
   - » In patients with LV dysfunction, use Amiodarone instead.
   - » Electrical cardioversion may be considered.
   - » Warfarinise for 4 weeks if AF is >48hrs duration.
   - » Consider Aspirin if AF is <48hrs duration and low stroke risk.

Dr.IOS 16July2013

Case1





Case1

Case1

Reversible Causes

- **H**ypovolemia
- **H**ypoxia
- **H**ydrogen ion (acidosis)
- **H**ypo-/hyperkalemia
- **H**ypothermia
- **T**ension pneumothorax
- **T**amponade, cardiac
- **T**oxins
- **T**hrombosis, pulmonary
- **T**hrombosis, coronary

Case 1

Pitfalls

1. Hx and physical examination
2. Initial investigation for Dx and Tx
3. Appropriate refer
4. Medical record

Case 2

- Case ผู้ป่วยชายอายุ 58 ปี 5 เดือน
- เชื้อชาติไทย สัญชาติไทย ศาสนาพุทธ อาชีพทำไร่
- ภูมิลำเนา อ.สอยดาว จ.จันทบุรี

History

- **CC:** อาเจียนเป็นเลือด 5 ชั่วโมงก่อนมาโรงพยาบาล
- **PI:**
  - 11 ชั่วโมงก่อนมาโรงพยาบาล: ผู้ป่วยให้ประวัติว่าปวดจุกแน่นท้องร้าวขึ้นมาที่หน้าอก หายใจไม่อิ่ม ไม่มีไข้ ไม่มีอาเจียนเป็นเลือด ไม่มีเจ็บหน้าอก ไม่มีใจสั่น ไม่ได้ไปรักษาที่ใด
  - 5 ชั่วโมงก่อนมาโรงพยาบาล: อาเจียนเป็นเลือดสีแดงคล้ำ ไม่มีก้อนเลือดปน 2 ครั้ง ปวดจุกแน่นท้อง หายใจไม่อิ่ม ไม่มีถ่ายดำ ไม่มีไข้ จึงมารพ. (ผู้ป่วยแจ้งประวัติกับพยาบาลในวอร์ดว่าอาเจียนเป็นนมมีเลือดปน ลักษณะสีแดงจาง ๆ เป็นสาย ๆ)

History

- PH:
  - U/D: DM type 2, HT, gout
  - No drug or food allergy
  - Quit smoking 1 moPTA and quit drinking 1 yrPTA
  - No Hx of surgery

Physical examination

- V/S:
  - BT 37c BP 130/80 RR 24 PR 68 SpO2 RA 80%
- HEENT: WNL
- Heart: normal S1S2, no murmurs
- Lung: fine crepitation LLL
- Abdomen: WNL
- Genitourinary: WNL
- Extremities: WNL
- Nervous system: WNL

Physical examination

- Other:
  - NG lavage
    - Gastric content with blood clot→ Lavage 1,000 ml → quite clear, no bile
  - CXR
    - Cardiomegaly → Impending CHF?
    - Interstitial infiltration at LLL

Problem list

- UGIH
- R/O LLL pneumonia

Investigation

- Hct stat 50%

- 7 ชั่วโมงหลัง admit notify pt. no pulse, no heart rate, cyanosis of face>>start CPR
- ET tube no 7.5 ลึก 21
- EKG: asystole
- Total adrenaline 12 amp
- DTX stat 58 mg → 50% glucose IV push
- CPR 30 min → no pulse → จำหน่ายผู้ป่วย death

Cause

Reversible Causes

- **H**ypovolemia
- **H**ypoxia
- **H**ydrogen ion (acidosis)
- **H**ypo-/hyperkalemia
- **H**ypothermia
- **T**ension pneumothorax
- **T**amponade, cardiac
- **T**oxins
- **T**hrombosis, pulmonary
- **T**hrombosis, coronary

HISTORY OR EVIDENCE OF GASTROINTESTINAL BLEEDING

Active profuse hematemesis or hematochezia

No

1. Obtain vital signs.
2. Examine for shock.

1. Shock
2. Supine hypotension (blood pressure < 80 mm Hg systolic) or postural hypotension

No

1. Obtain history.
2. Perform brief examination.
3. Obtain venous access and blood for type and screen, hematocrit, and PT/PTT.

Yes

Yes

Major acute gastrointestinal tract bleeding. Exsanguination possible.
Other risk factors:
1. Severe liver disease
2. Advanced age
3. Coagulopathy
4. Cardiopulmonary disease

Nasogastric lavage

1. Insert 2 large-bore IVs ≥ 18 gauge.
2. Obtain blood for type and crossmatch, PT/PTT, CBC, serum electrolytes, liver function tests, BUN and creatinine, glucose.
3. Begin infusion of 2 L crystalloid solution for treatment of hypotension pending arrival of blood.
4. Give oxygen at 5–10 L/min by nasal cannula or mask.
5. Perform abdominal and rectal examination, including examination of stool for gross and occult blood.
6. Insert urinary catheter if patient is in shock.
7. Give nothing by mouth, insert nasogastric tube, and perform aspiration and lavage with normal saline.
8. Notify specialist available to perform emergent endoscopy.
9. If patient is unstable after crystalloid bolus, and cross-matched blood is unavailable, transfuse un-crossmatched blood.
10. Correct coagulopathy, vitamin K, and FFP as needed.
11. Hospitalize in an intensive care unit.

1. Documented hematemesis
2. Blood in nasogastric aspirate
3. Nasogastric aspirate without bile or blood but with melenic stool
4. Hyperactive bowel sounds

Diagnosis: Probable upper gastrointestinal bleeding (see Figure 16–2)

1. No documented hematemesis
2. Nasogastric aspirate with bile but without blood
3. Maroon stools
4. Hematochezia, especially with normal hyperactive bowel sounds

Diagnosis: Probable lower gastrointestinal bleeding (see Figure 16–3)

Source: Stone CK, Humphries RL: *Current Diagnosis & Treatment: Emergency Medicine, 7th Edition*: www.accessmedicine.com

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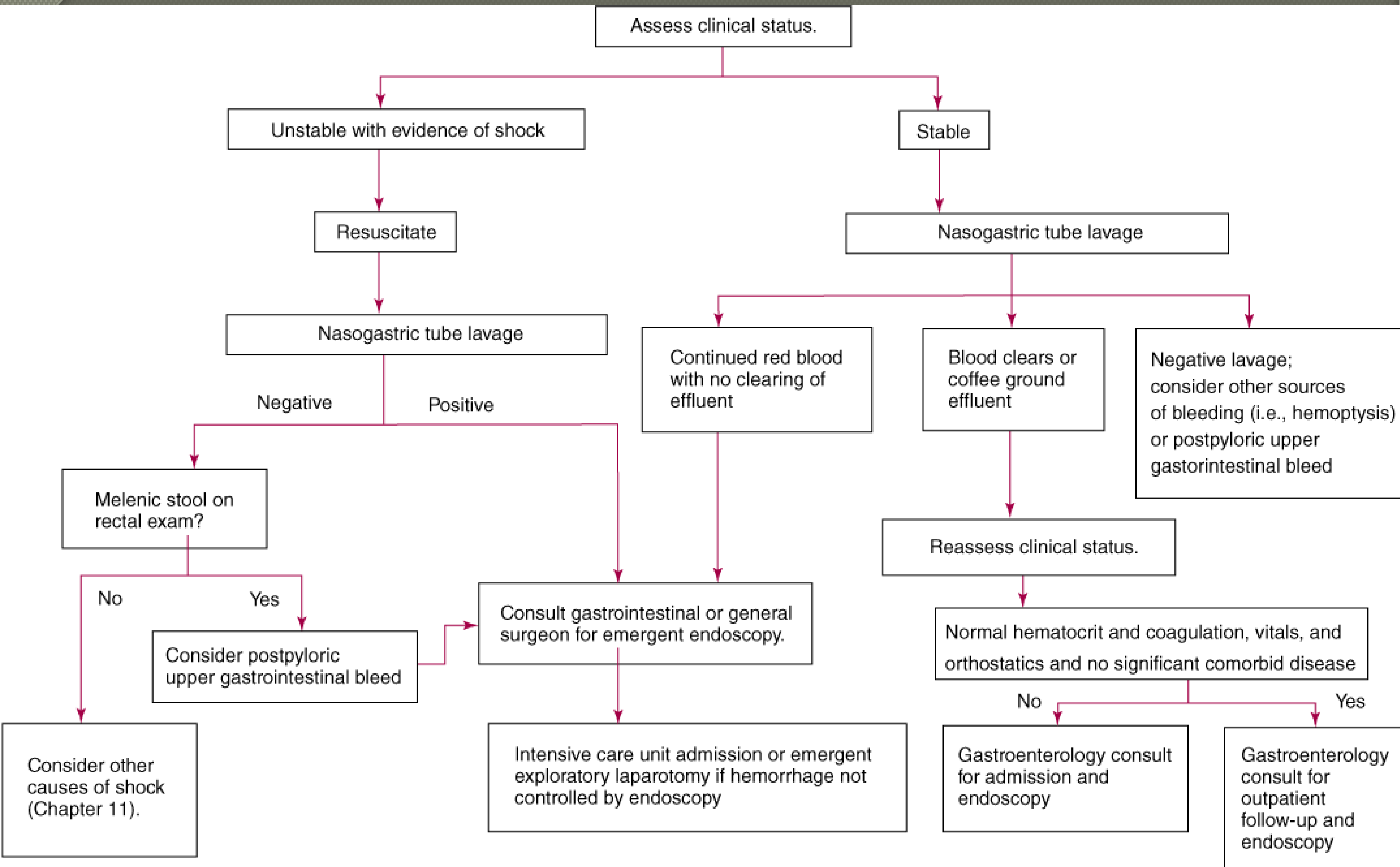

Source: Stone CK, Humphries RL: *Current Diagnosis & Treatment: Emergency Medicine, 7th Edition:* www.accessmedicine.com

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EKG??

- Myocardial infarction is three to five times more common in diabetic patients than in age-matched controls.
- Aspirin (81-325 mg daily) has been shown to effectively inhibit thromboxane synthesis by platelets and reduce the risk of diabetic atherothrombosis without increasing risks of either vitreous or gastrointestinal hemorrhage.
- Use of low-dose enteric-coated aspirin is recommended in adults with diabetes and evident macrovascular disease, in those with increased cardiovascular risk factors, or in those patients older than 30 years.