

# INTEGRATED SCORES AND CLASSIFICATION

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# SURGERY

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# Q. Not included in the SIRS

- a) Temperature  $<36\text{ C}$
- b) WBC  $>12000$
- ~~c) SBP  $<100\text{mm Hg}$~~
- d) HR  $>90\text{bpm}$

# Q. Not included in the qSOFA score:

- a) GCS
- b) RR
- c) SBP
- ~~d) Creatinine~~

**SIRS -2 or more +:**

Core Temperature  $<36^{\circ}\text{C}$  or  $> 38^{\circ}\text{C}$

HR  $>90\text{bpm}$

RR  $>20/\text{min}$  or  $\text{P}_{\text{co}_2} <32 \text{ mmHg}$

White blood cell count  $>12,000/\mu\text{L}$ ,  $<4000/\mu\text{L}$ , 10% bands

White DR

x BP

Lt shift

LAP score ↑

Low - CMZ/PNH



G A R B A  
RR  
22

RTS

Not high risk

0 or 1  
Points

Continue management  
as appropriate

2 or 3  
Points

High risk of poor  
outcome

Assess for evidence of  
organ dysfunction

# TRAUMA INJURY AND SEVERITY SCORE (TRISS)

ISS +

RAM



Body Region	Score	Abbreviated Injury Scale (AIS)
Head	1	Minor
Face	2	Moderate
Neck	3	Serious
Thorax	4	Severe
Abdomen	5	Critical
Spine	6	<u>Unsurvivable</u>
Upper Extremity		
Lower Extremity		
External and other		

All injuries are assigned from an internationally recognised dictionary that describes over 2000 injuries. Multiple injuries are scored by adding together the squares of the three highest AIS scores. The ISS can range from 1 to 75. Scores of 7 and 15 are unattainable because these figures cannot be obtained from summing squares. The maximum score is 75. By convention, a patient with an AIS of 6 in one body region is given an ISS of 75.

- a) 7 x
- b) 15 x
- c) 75 x
- d) 36

# ELISA

## Mangled Extremity Severity Score (MESS)

Type	Characteristic	Injury	Points
1	Low energy	Stab wound, simple closed fx, small-caliber GSW	1
2	Medium energy	Open/multilevel fx, dislocation, moderate crush shotgun, high-velocity GSW	2
3			
4	High energy Massive crush	Logging, railroad, oil rig accidents	4

## Shock Group

1	Normotensive	BP stable	0
2	Transiently Hypotensive	BP unstable in field but responsive to fluid	1
3	Prolonged hypotension	SBP <90mmHg in field and responsive to IV fluids	2
		In OR	

## Ischemia Group

1	None	Pulsatile, no signs of ischemia	1
2	Mild	Diminished pulses without signs of ischemia	2
3	Moderate	No Doppler able pulse, sluggish cap refill, Paresthesia, diminished motor activity	3
4	Advanced	Pulseless, cool, paralyzed, numb without cap refill	4

## Age Group

1	<30y/0		0
2	30-50	Telegra...andscalpel t.me/brainandscalpel	1

## The Trauma Associated Severe Hemorrhage (TASH) Score.

Systolic BP

• Haemoglobin,

• FAST,

• Presence long-bone or pelvic fracture,

• Heart Rate

• Base excess (BE), and

• Gender.

• If the score is more than 27- there is 100% need of Blood transfusion

IL → DCR : 1:1:1

PRBC FFP PTE

Q. A patient was brought to the ER following a road traffic accident. On examination, the patient opens his eyes to a painful stimulus, speaks inappropriate words, and withdraws his limbs to a painful stimulus. What is his GCS score?

✓ E 4      V 5 (T)      M 6  
3      4      5  
(2) + (3) + (4)  
1      2      3  
1      2  
1

A. 8

~~B. 9~~

C. 10

D. 7

GCS-P																
Motor response	Verbal response	Eye opening														
1. None	None	None														
2. Extension	Sounds	To pressure														
3. Abnormal flexion	Words	To speech														
4. Withdrawal	Confused	Spontaneous	Pupil reactivity score													
5. Localizing	Oriented		<table border="1"> <thead> <tr> <th colspan="2">Pupil(s) unreactive to light</th> <th>Score</th> </tr> </thead> <tbody> <tr> <td>Both pupil</td> <td>—————</td> <td>2</td> </tr> <tr> <td>One pupil</td> <td>—————</td> <td>1</td> </tr> <tr> <td>Neither pupil</td> <td>—————</td> <td>0</td> </tr> </tbody> </table>		Pupil(s) unreactive to light		Score	Both pupil	—————	2	One pupil	—————	1	Neither pupil	—————	0
Pupil(s) unreactive to light		Score														
Both pupil	—————	2														
One pupil	—————	1														
Neither pupil	—————	0														
6. Obeying commands																

\* Important changes highlighted in red

Pupil reactivity score:  
Subtracted from the calculated GCS

↓

For total GCS, subtract pupil reactivity score from calculated GCS

GCS  
 / \  
 max min  
 15 (3)

GCS-p  
 / \  
 max min  
 15 (1)

Q. Identify the incorrect pair



Corona

a) C4c:



b) C1:



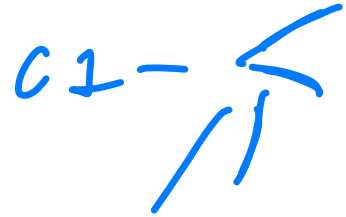
healed  
ulcer

~~c) C4a:~~



d) C4b:

- Bisgaard  
regionen



2 - vV

3 - E

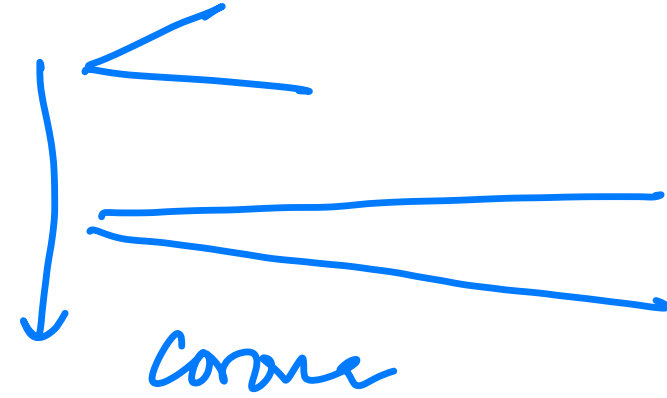
4 a

b

c

d

e



(2)

CEAP	
C class	Description
C <sub>1</sub>	Telangiectasias or reticular veins
C <sub>2</sub>	Varicose veins
C <sub>2r</sub>	Recurrent varicose veins
C <sub>3</sub>	Edema
C <sub>4</sub>	Changes in skin and subcutaneous tissue
C <sub>4a</sub>	Pigmentation or eczema
C <sub>4b</sub>	Lipodermatosclerosis or atrophie blanche
C <sub>4c</sub>	Corona phlebectatica
C <sub>5</sub>	Healed
C <sub>6</sub>	Active venous ulcer
C <sub>6r</sub>	Recurrent active venous ulcer



4b



Etiologic classification <sup>C = EAP</sup>

- Ec Congenital
- Ep Primary
- Es Secondary (post-thrombotic)
- En No venous cause identified

Anatomic classification

- As Superficial veins
- Ap Perforator veins
- Ad Deep veins
- An No venous location identified

Pathophysiologic

- Pr Reflux
- Po Obstruction
- Pr, o Reflux and obstruction
- Pn No venous pathophysiology identifiable

# Fontaine

# Rutherford

Stage	Symptoms	↔	Grade	Category	Symptoms
I	Asymptomatic	↔	0	0	Asymptomatic
II	Intermittent claudication	↔	I	1	Mild claudication
			I	2	Moderate claudication
			I	3	Severe claudication
III	Ischaemic rest pain	↔	II	4	Ischaemic rest pain
IV	Ulceration or gangrene	↔	III	5	Minor tissue loss
			III	6	Major tissue loss

# BOYD

Grade	Pain
I	Pain relieved on continued walking
II	Walks in pain
III	Compelled to take rest
IV	Pain at rest

Brunners:  
Lymphedema

0 Histological abnormalities  
Not clinical evident

I Pitting edema,  
Subsides with elevation

II Non pitting edema  
Not relieved with elevation

III Irreversible skin changes,  
Fibrosis, papillae

→ Stemmer sign

↑ pain of 1st step: Neurogenic  
Shopping cart sign  
Lumbar canal stenosis

# Q. Identify the correct pair

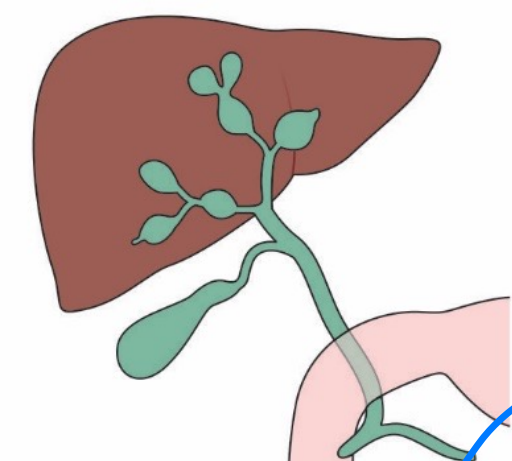
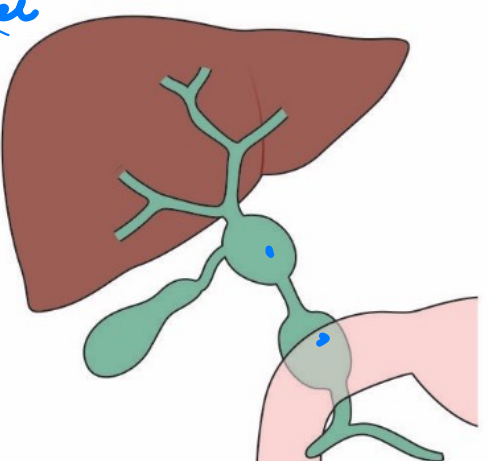
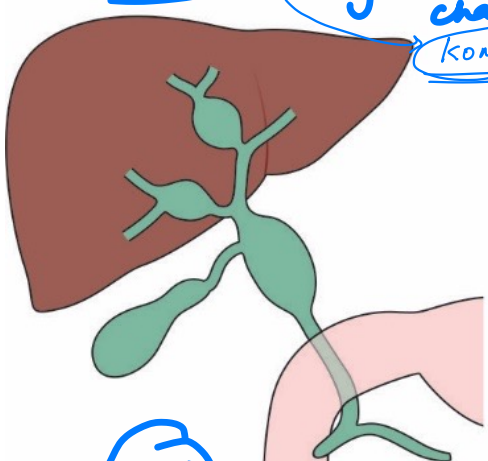
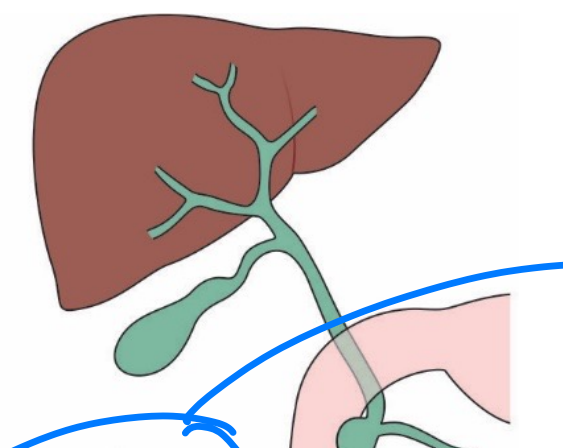
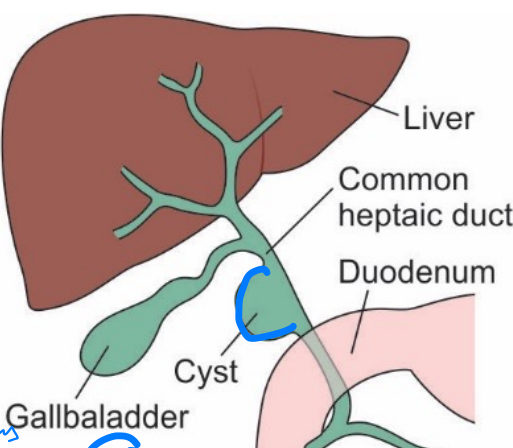
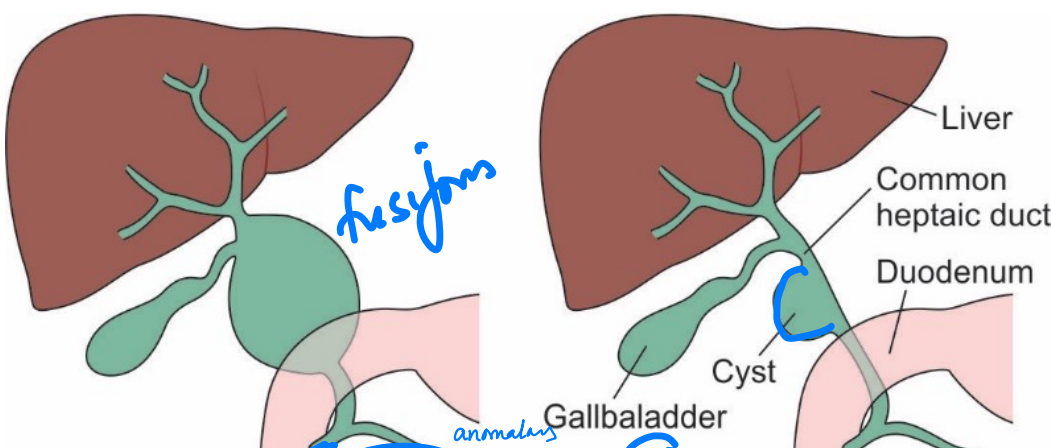
- a) Strasberg classification : ~~Benign stricture~~ *Bile leaks*
- b) Bismuth classification : ~~Choledochal cyst~~ *Benign stricture*
- c) Bismuth-Colerette classification: Cholangiocarcinoma
- d) Todani classification: ~~Bile leak~~ *Choledochal cyst*
- e) Kasai classification: Mirizzi syndrome

↓  
EMBA

↓  
Csendes

# CHOLEDOCHAL CYST

TODANI classific-

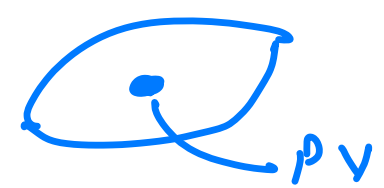


*ductal plate malform*

*Mx: Roux Y*

*HJ*

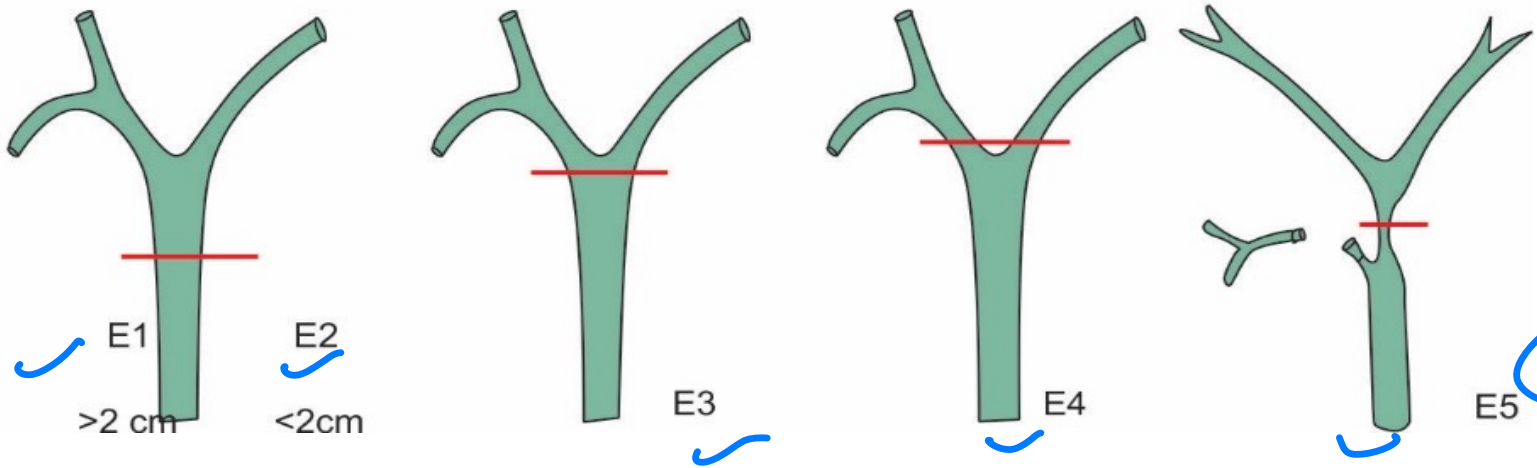
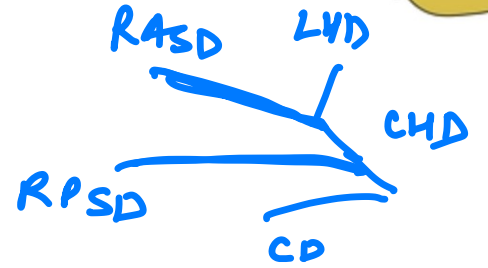
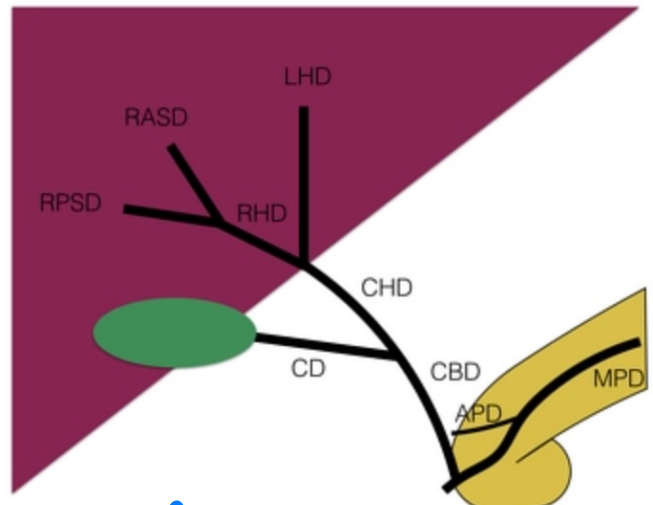
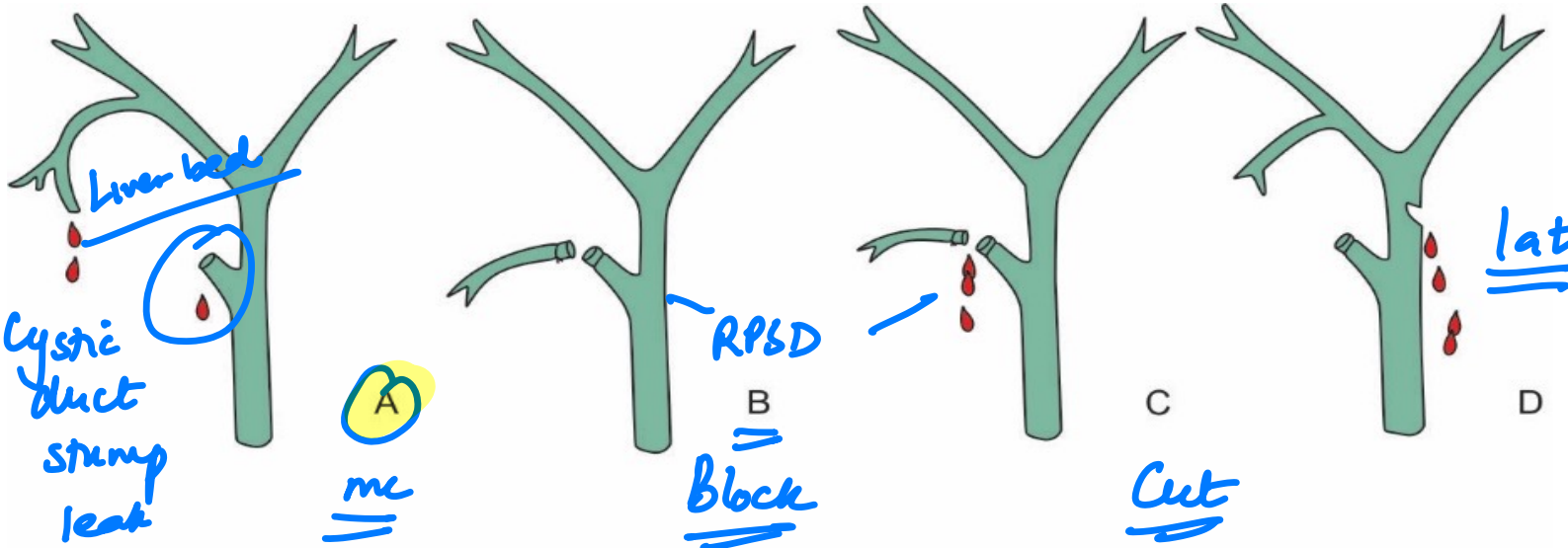
*CCAT*



*Mx - Liver transplant*

# BILE DUCT INJURIES

Strassberg



Bismuth

benign structures

post op drain ↑↑ /

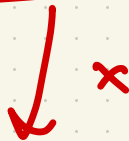
jaundice



USG



pytail

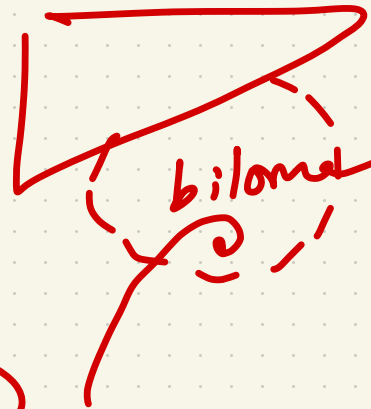


ERCP

+ stent

- IOC /

Gold slab



most sn I<sub>x</sub> bile leak:

① type / site — MIDA scan

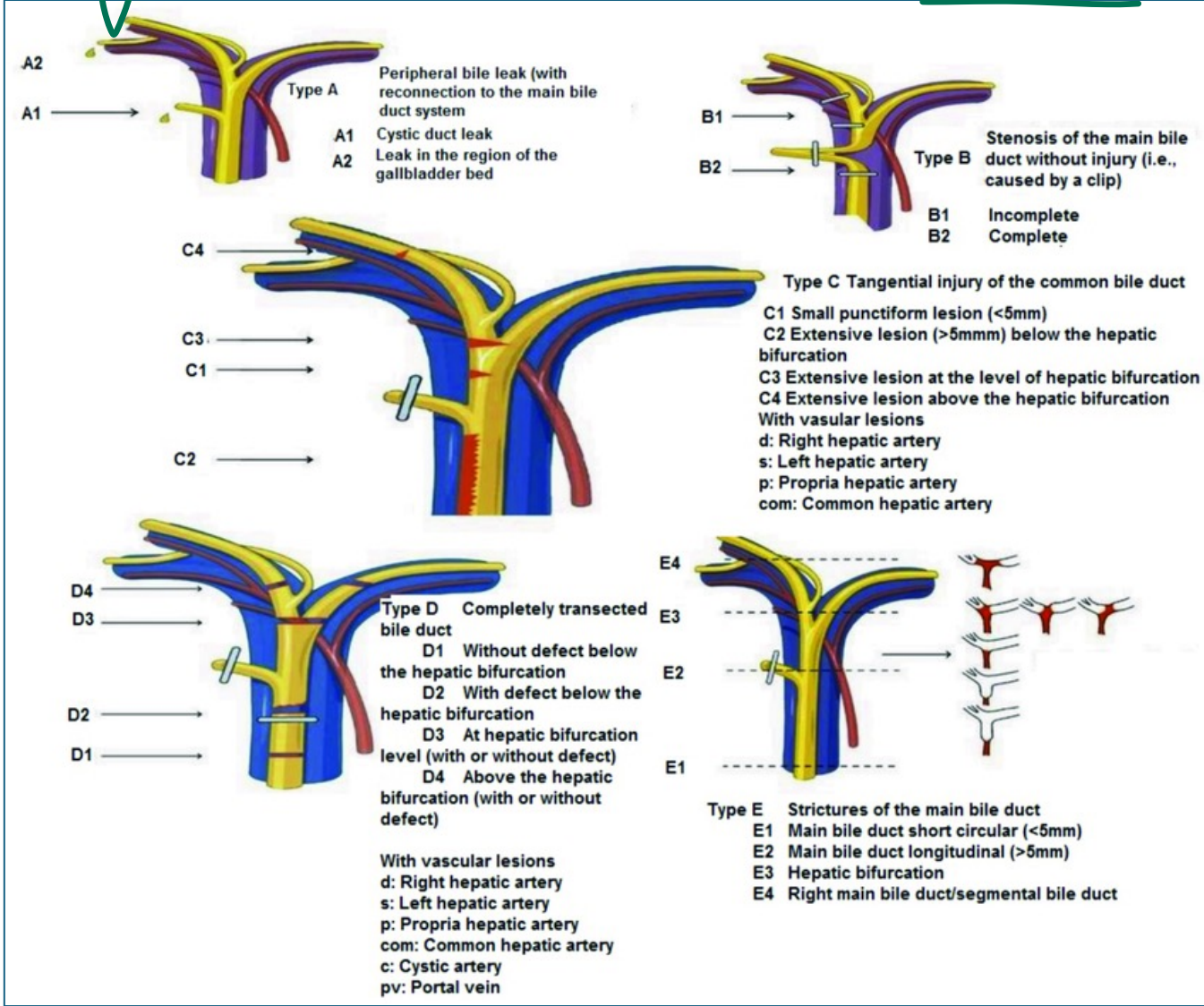
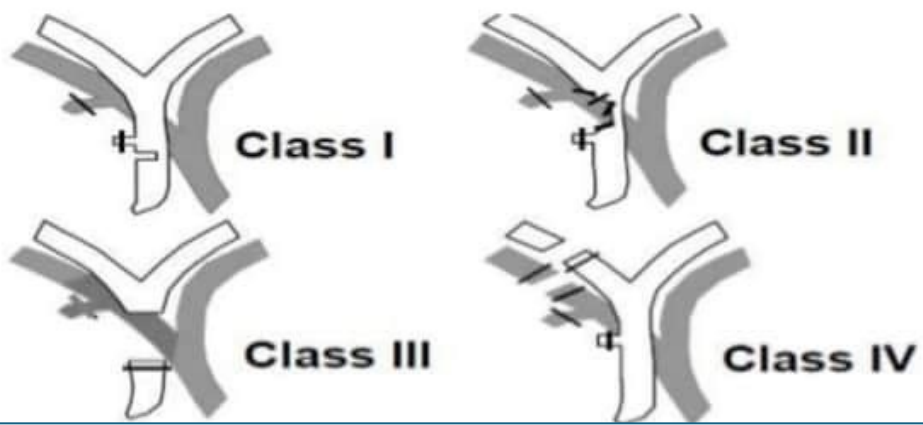
Stewart - Way

Laparoscopic  
bile duct  
ry

HANNOVER

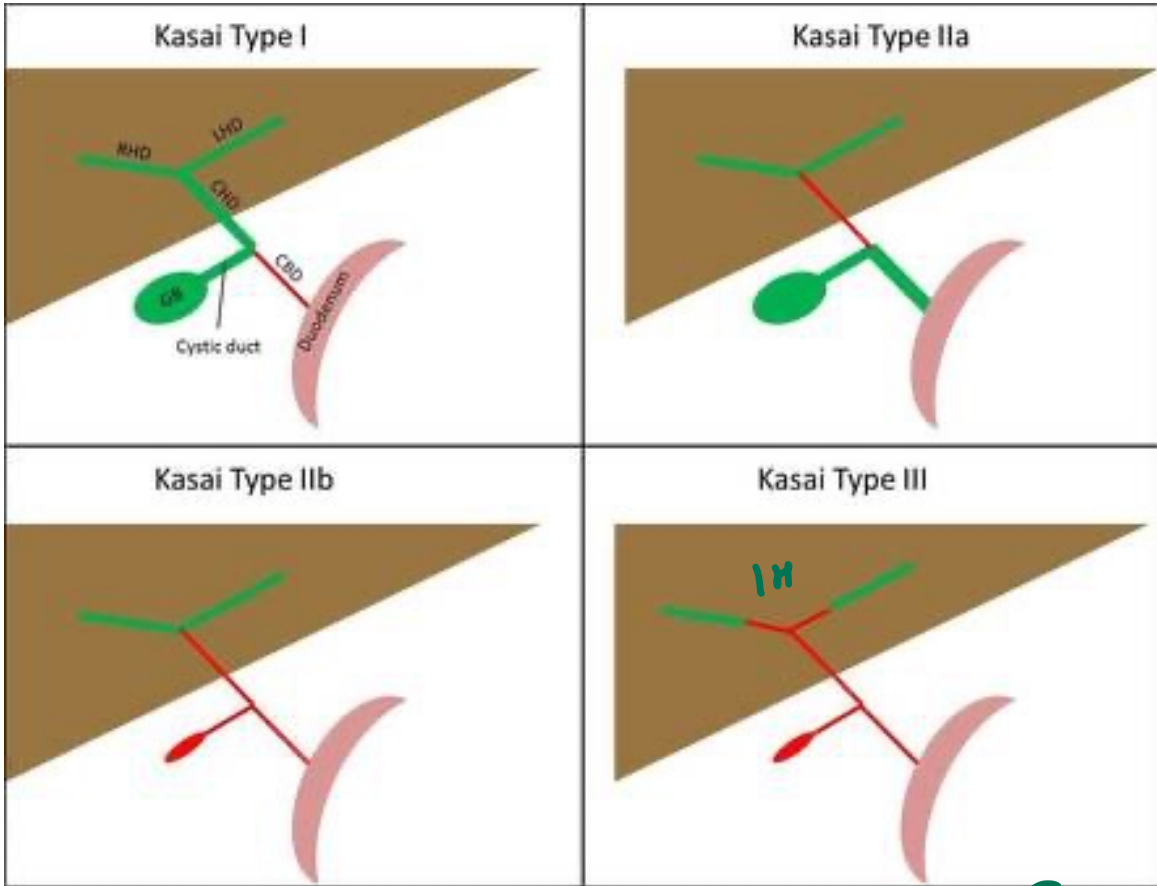
bile duct  
+  
vascular

- **Class I** CBD mistaken for cystic duct, but error recognized before CBD is divided.
- **Class II** Damage to CHD from clips or cautery placed on duct. Often occurs where visibility is limited due to inflammation or bleeding.
- **Class III** Most common (60%), CBD mistaken for cystic duct. Common duct is transected and variable portion that includes junction of cystic and common duct is excised .
- **Class IV** Damage to right hepatic duct , either because this structure is mistaken for cystic duct, or injured during dissection.



EHBA

TOKYO acute cholec



Severity	Criteria
<u>Grade 1—Mild</u>	<ul style="list-style-type: none"> <li>Acute cholecystitis not meeting other severity criteria</li> <li>Mild gallbladder inflammation, no organ dysfunction</li> </ul>
<u>Grade 2—Moderate</u>	<p>Acute cholecystitis with any of the following but no organ/system dysfunction:</p> <ul style="list-style-type: none"> <li>Elevated white blood cell count (&gt;18,000/mL)</li> <li>Palpable tender mass at right upper quadrant</li> <li>Duration of complaints exceeding 72 h</li> <li>Marked local inflammation (such as biliary peritonitis, pericholecystic abscess, hepatic abscess, gangrenous cholecystitis, emphysematous cholecystitis)</li> </ul>
<u>Grade 3—Severe</u>	<p>Acute cholecystitis with dysfunction of any one of the following organs/systems:</p> <ul style="list-style-type: none"> <li>Cardiovascular dysfunction (hypotension requiring treatment with dopamine &gt; 5 mg/kg/min of body weight or any dose of norepinephrine)</li> <li>Neurological dysfunction (decreased levels of consciousness)</li> <li>Respiratory dysfunction (ratio of PaO<sub>2</sub>/FiO<sub>2</sub> &lt; 300)</li> <li>Renal dysfunction (oliguria, creatine &gt; 2.0 mg/dL)</li> <li>Hepatic dysfunction (PT-INR &gt; 1.5)</li> </ul>

C

MODS

• neonatal jaundice (cong)

HIDA : NIVTT  
acute ant

BSG : triangular  
Lord sign

IOC : Intra-op cholangiography

Revised Atlanta

pancreatitis

# Q. What is not included in the MELD score?

CBZ

- a) Creatinine
- b) Bilirubin
- c) PT
- ~~d) Albumin~~

### Model For End Stage Liver Disease (MELD)

**Creatinine** (mg/dL)

**Bilirubin** (mg/dL)

**INR**

Revised:  $Na^+$

### Pediatric End-Stage Liver Disease (PELD)

-Total bilirubin

-Albumin

-Age (< 1 Y)

-Growth failure

-INR

BI

AAG

### NAZER index:

Bilirubin ✓

PT/INR ✓

AST

BT

Wilson's

AST

King's college

### Acetaminophen-induced ALF

Arterial pH < 7.30

Or all of the following

- Prothrombin time > 100 sec (INR > 6.5)
- Serum creatinine > 3.4 mg/dL
- Grade 3 or 4 hepatic encephalopathy

### Non-acetaminophen-induced ALF

Prothrombin time > 100 sec (INR > 6.5)

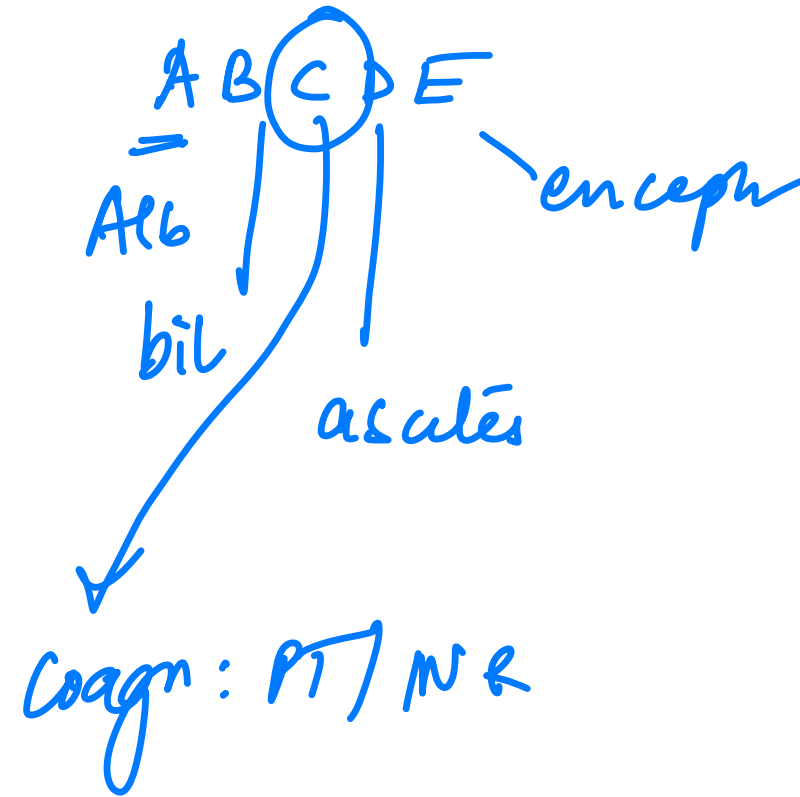
Or any 3 of the following:

- Non-A, non-B viral hepatitis, drug-induced or indeterminate etiology of ALF
- Time from jaundice: encephalopathy > 7 days
- Age < 10 years or > 3.5)
- Serum bilirubin > 17.4 mg/dL

x < 7d

Q. All of the following are included in Child-Pugh score except:

- a) Albumin
- b) Bilirubin
- ~~c) Creatinine~~
- d) Encephalopathy
- e) INR



Clinical and Lab Criteria	Points		
	1	2	3
<b>Encephalopathy</b>	<b>None</b>	<b>Mild to moderate (grade 1 or 2)</b>	<b>Severe (grade 3 or 4)</b>
<b>Ascites</b>	<b>None</b>	<b>Mild to moderate (diuretic responsive)</b>	<b>Severe (diuretic refractory)</b>
<b>Bilirubin (mg/dL)</b>	<b>&lt;2</b>	<b>2-3</b>	<b>&gt;3</b>
<b>Albumin (g/dL)</b>	<b>&gt;3.5</b>	<b>2.8 – 3.5</b>	<b>&lt;2.8</b>
<b>Prothrombin time Seconds prolonged International normalized ratio</b>	<b>&lt;4 &lt;1.7</b>	<b>4-6 1.7-2.3</b>	<b>&gt;6 &gt;2.3</b>
<b>Class A= 5 to 6 points (least severe liver disease)</b> <b>Class B = 7 to 9 points (moderately severe liver diseases)</b> <b>Class C = 10 to 15 points (most severe liver disease)</b>			

## CLIP staging system for HCC

Variable	0	1	2
Child-pugh score	A	B	C
Tumor morphology and extension	Uninodular and extension $\leq 50\%$	Multinodular and extension $\leq 50\%$	Massive or extension $> 50\%$
AFP (ng/dL)	$< 400$	$\geq 400$	
Portal vein thrombosis	No	Yes	

CLIP  
Liver tumor

AFP

## Okuda staging

Factors representing advanced disease

Tumor size  $> 50\%$  of liver

- Ascites
- Albumin  $< 3$  g/dL
- Bilirubin  $> 3$  mg/dL

CP

"BATA"

Stage I	No factors present
Stage II	1-2 factors
Stage III	3-4 factors

## Milan criteria

- Single tumor  $\leq 5$  cm, or
- 2-3 tumors none exceeding 3 cm, and
- No vascular invasion and/or extrahepatic spread

## UCSF Criteria

- Single tumor  $\leq 6.5$  cm, or
- 2-3 lesions, none exceeding 4.5 cm, with total tumor diameter  $\leq 8$  cm
- No vascular invasion and /or extrahepatic spread

Liver transplant

# Esophageal motility disorders: Chicago V4 classification

Manometry

-Integrated relaxation pressure >15mm Hg  
-No peristalsis

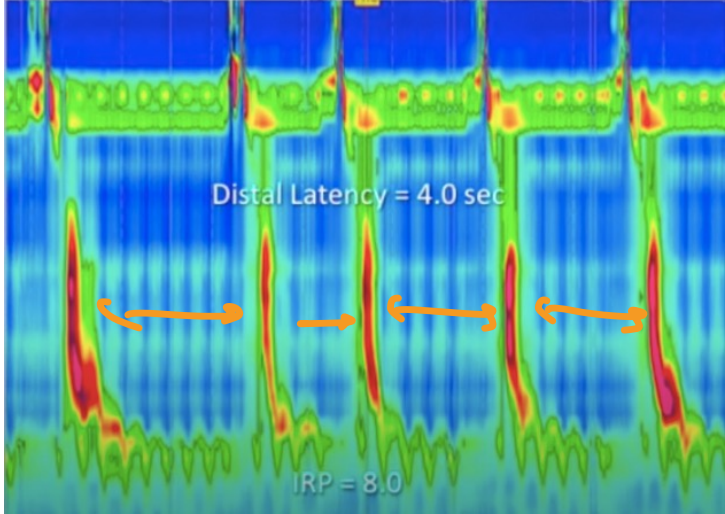
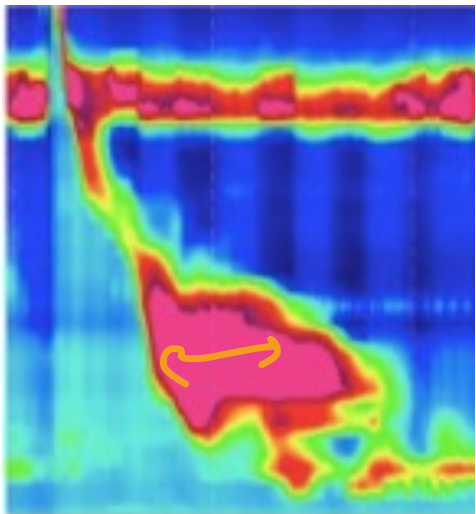
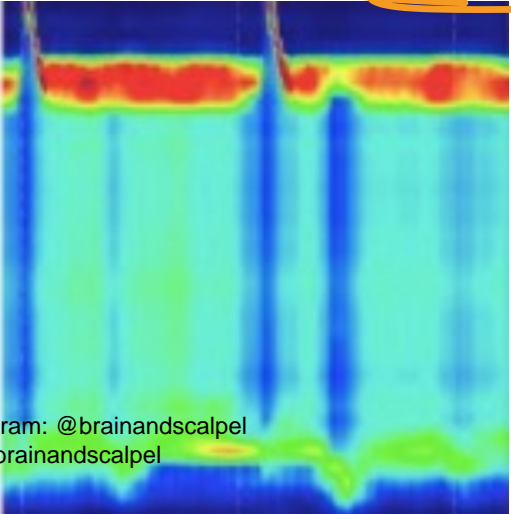
Distal contractile integral > 8000 mmHg cm s  
"Pan esophageal pressurisation"

Distal latency < 4.5 s,  
"Spasm"

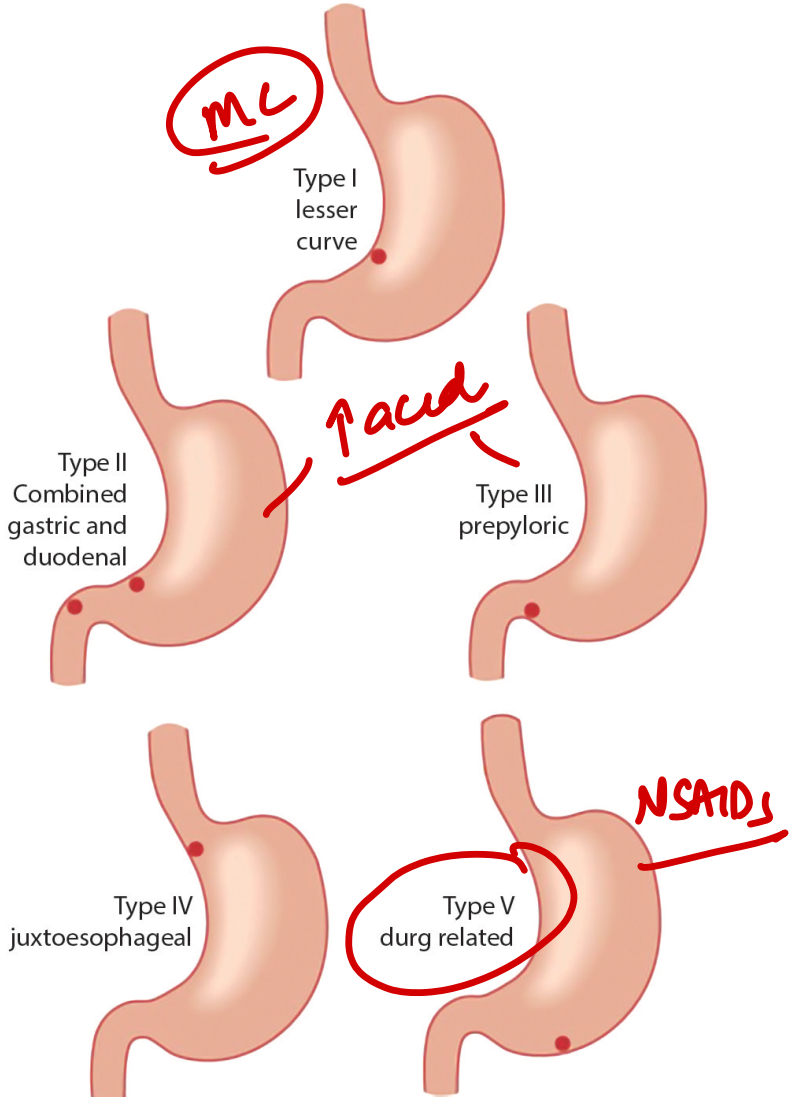
Achalasia  
VIP/NO ⊖

Hypercontractile  
Jackhammer / Nutcrack

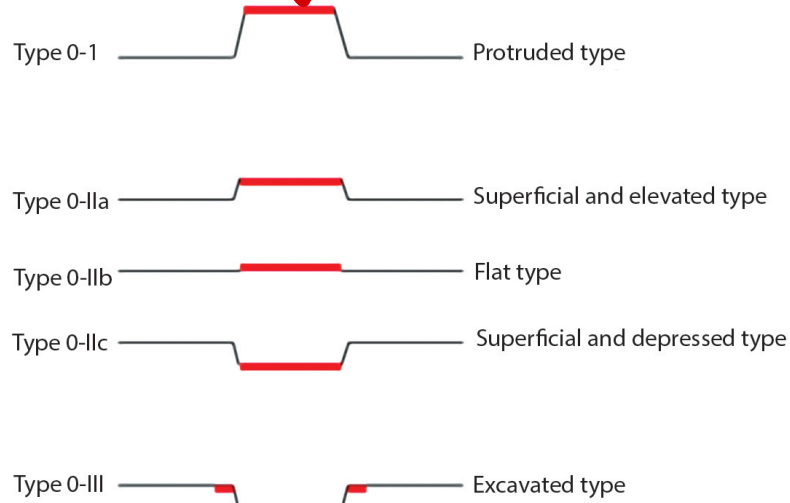
DES



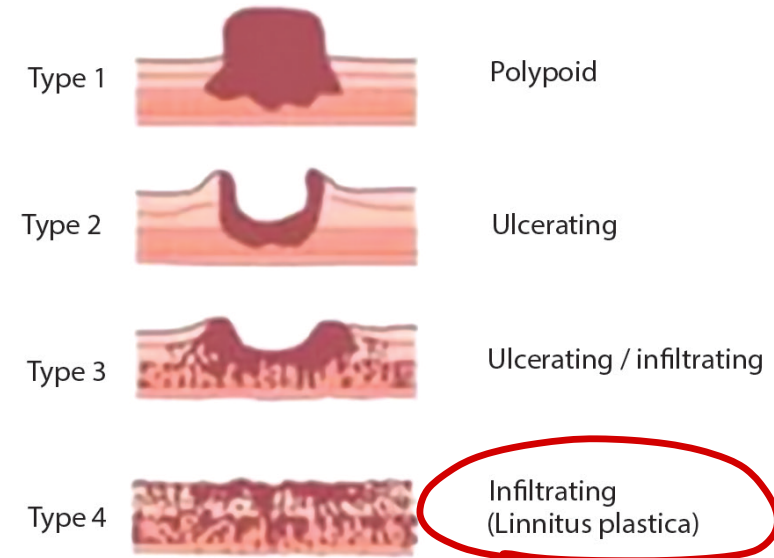
# Johnson's



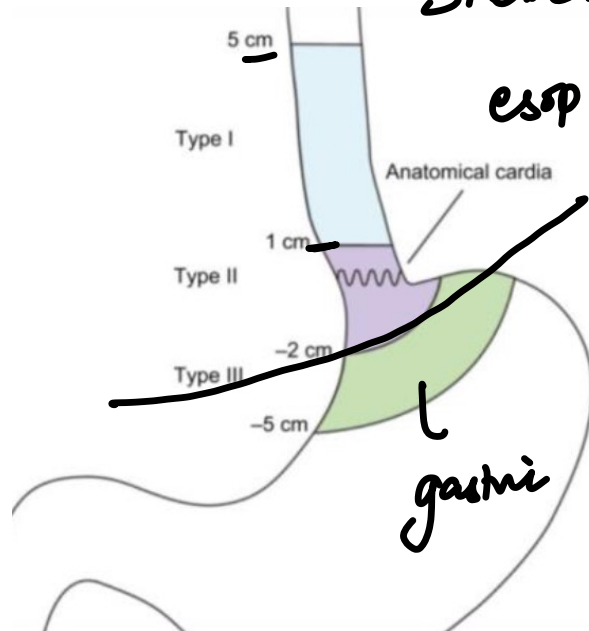
# early: Japanese



# Late: Borrmann



# Sievert



Handwritten notes: "Krukenburg" (circled in red), "CDH 1", and "E-cadherin" (circled in red).

LAUREN:	Diffuse / Intestinal
DAWSON:	GI lymphoma
FLETCHER:	GIST — CD 117 = MC KIT =
JOENSSU:	

Handwritten notes: "size mitotic index" and "+ size of GIST" (underlined in blue).

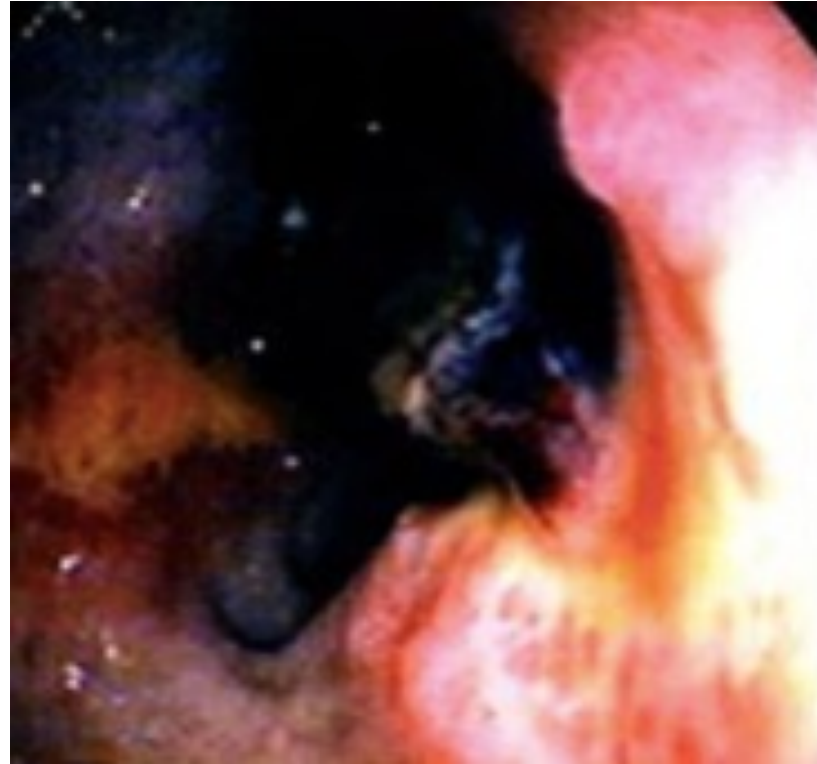
Q. Identify the type of Forrest score :

a) 1a

b) 2a

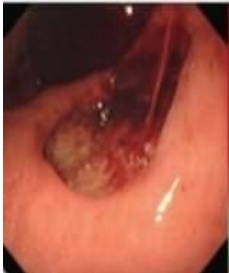
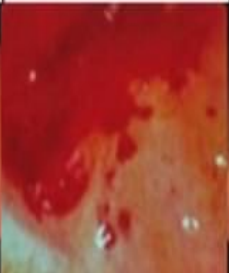



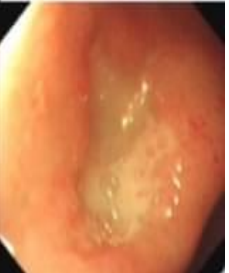
c) 2b

d) 3



# FORREST classifc<sup>n</sup>

# Rockall CASE

Ia	Ib	IIa	IIb	IIc	III
Spurting bleed	Oozing bleed	Non-bleeding visible vessel	Adherent clot	Flat spot in ulcer crater	Clean base ulcer
					

Variables	Responses	Scores
Age (in years)	< 60	0
	60-79	1
	>80	2
Shock	No shock	0
	Tachycardia (SBP > 100 mmHg, Pulse > 100 beats/minute)	1
	Hypotension (SBP < 100 mmHg, Pulse > 100 beats/minute)	2
Co-morbidity	None	0
	Cardiac failure, IHD, any major co-morbidity	2
	Renal/liver failure, metastatic malignancy	3
Diagnosis (post-endoscopy)	Mallory-Weiss tears	0
	All other diagnoses	1
	Malignancy of the upper GI tract	2

<b>B</b>	Ongoing Bleeding	✓✓
<b>L</b>	Low systolic blood pressure	✓✓
<b>E</b>	Elevated prothrombin time	.
<b>E</b>	Erratic mental status (change in mental status)	.
<b>D</b>	Comorbid Disease (other than bleeding) requiring admission to intensive care unit	✓✓✓

Telegram: @brainandscalpel  
t.me/brainandscalpel

GI bleed

3-2-1

Mismatch repair

HNPCC

Haggit

Revised criteria (Amsterdam criteria II)

At least three relatives with an HNPCC-associated cancer (colorectal cancer, cancer of endometrium, small bowel, ureter, or renal pelvis)

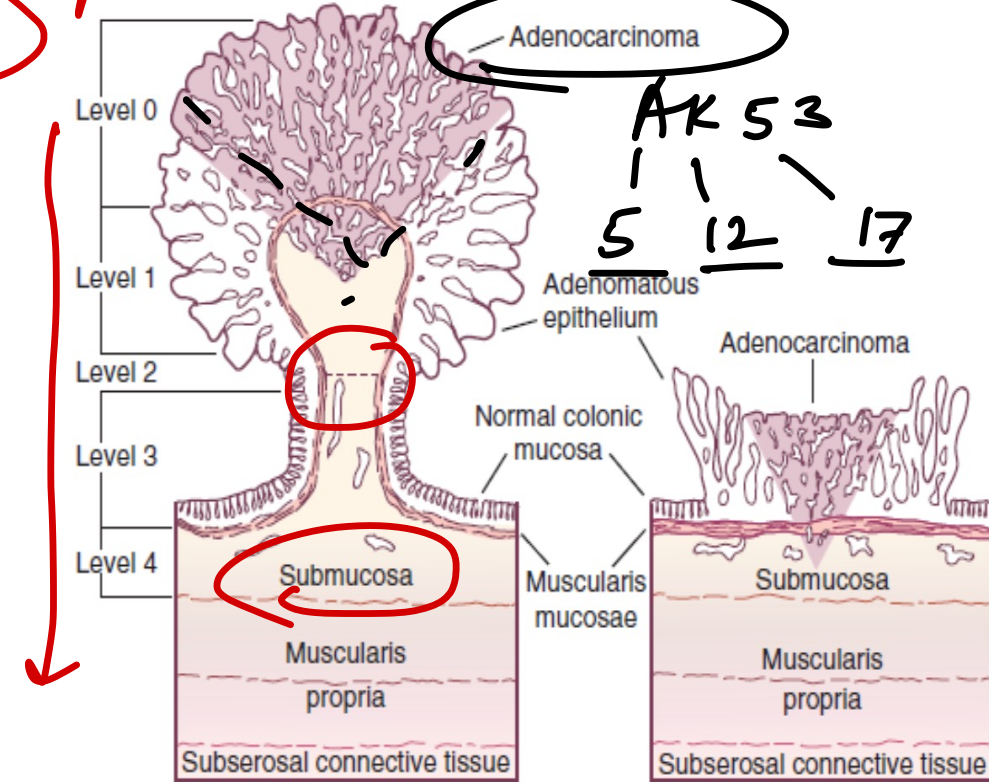
One should be a first-degree relative of the other two

At least two successive generations should be affected

At least one should be diagnosed before age 50 years

Familial adenomatous polyposis should be excluded in the colorectal cancer case(s) if any

Tumors should be verified by pathological examination



AK 53  
5 12 17

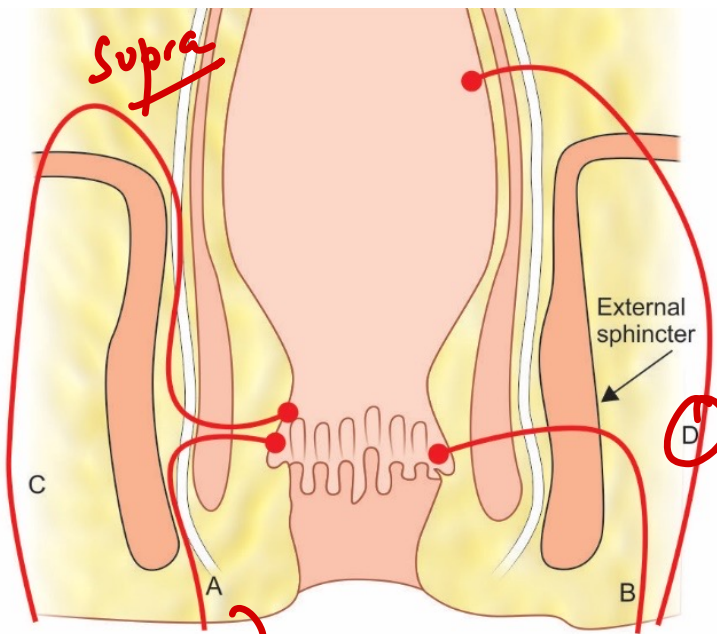
Head

Neck

Stalk

Submucosa

# PARK

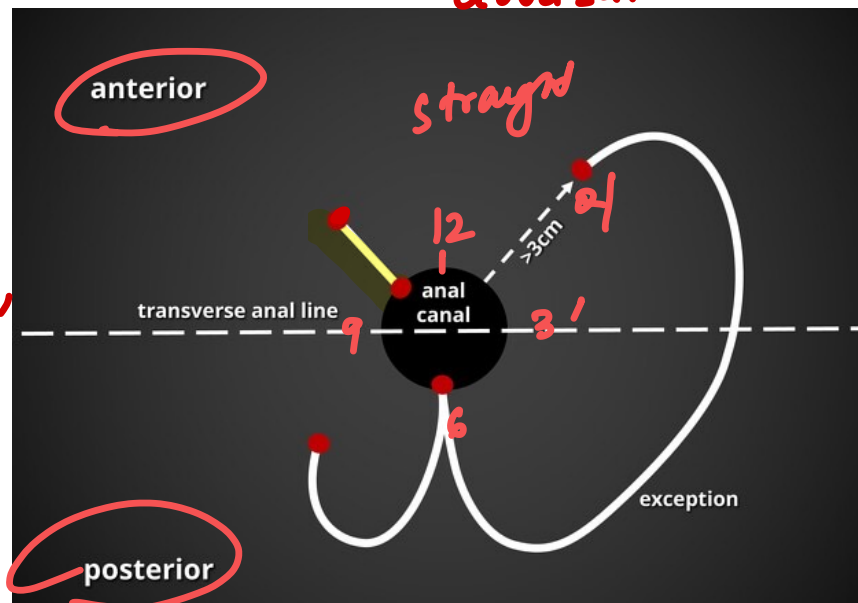


MC  
Intersphincter

trans

ITS  
Extra  
Extra sph

# Goodsall



Alvarado score	
Feature	Score
Migration of pain	1
Anorexia	1
Nausea	1
Tenderness in right lower quadrant	2
Rebound pain	1
Elevated temperature	1
Leucocytosis	2
Shift of white blood cell count to the left	1
<b>Total</b>	<b>10</b>

*diverticulitis*

Hinchey Classification	
1a	<u>Pericolonic Phlegmon and inflammation</u>
1b	<u>Pericolonic abscess &lt;4cm</u>
2	<u>Pelvic or inter-loop abscess or abscess &gt;4cm</u>
3	<u>Purulent peritonitis</u> &
4	<u>Feculent peritonitis</u>

Hernia	Characteristics	
Medial	Subxiphoid	M1
	Epigastric	M2
	<u>Umbilical</u>	<u>M3</u>
	Infraumbilical	M4
	Suprapubic	M5
Lateral	Subcostal	L1
	Femoral hernia	L2
	Iliac	L3
	Lumbar	L4

✓  
 M1  
 M2  
 ○ M3  
 M4  
 M5

EHP S

Southampton  
 SSI

Criterion
A Additional Treatment
S Serous discharge
E Erythema
P Purulent exudates
S Separation of deep tissues
I Isolation of bacteria
S Stay in hospital prolonged over 14 days (2wk)


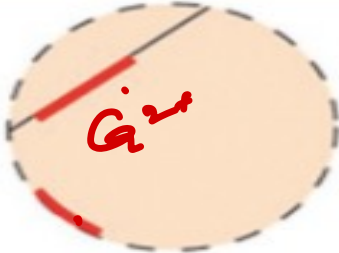


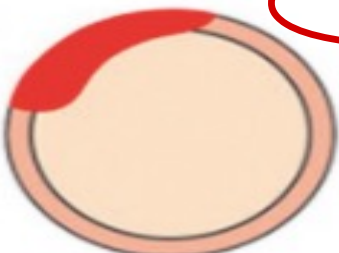
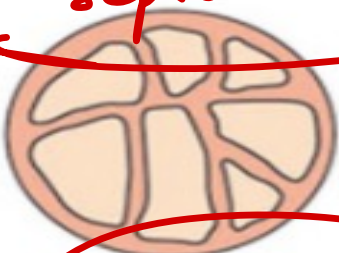


~~Indecor~~

> 3wks: Grevins  
 hurt (IPC)

Grade	Appearance
0	Normal healing Normal healing with mild bruising or erythema
I	I a Some bruising I b Considerable bruising I c Mild erythema Erythema plus other signs of inflammation
II	II a At one point II b Around sutures II c Along wound II d Around wound
III	Clear or haemoserous discharge III a At one point only ( $\leq 2$ cm) III b Along wound ( $>2$ cm) III c Large volume III d Prolonged ( $> 3$ days)
IV	Pus IV a At one point only ( $\leq 2$ cm) IV b Along wound ( $>2$ cm)
V	Deep or severe wound infection with or without tissue breakdown; hematoma requiring aspiration

# BOSNIAK CLASSIFICATION

Renal cyst

		LIKELIHOOD OF MALIGNANCY	MANAGEMENT
I (SIMPLE)		0%	Benign; no follow-up needed
II (MINIMALLY COMPLICATED)		0%	Benign; no follow-up needed
IIF (SLIGHTLY MORE COMPLICATED)		10-12%	Follow-up imaging
III (MODERATELY COMPLEX)		50-60%	Resection
IV (VERY COMPLICATED)		Malignant until proven otherwise (100%)	Resection
			
			
			

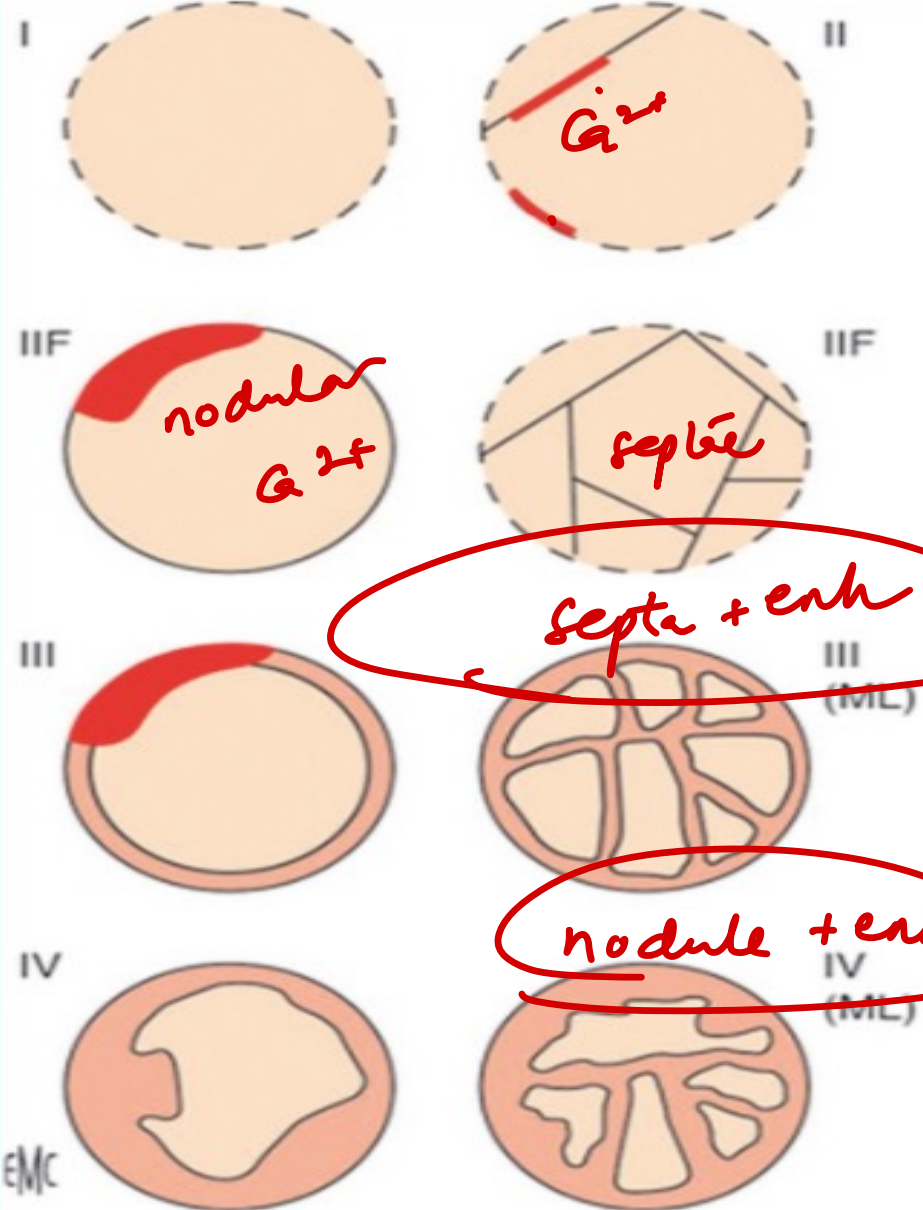
I  
(SIMPLE)

II  
(MINIMALLY COMPLICATED)

IIF  
(SLIGHTLY MORE COMPLICATED)

III  
(MODERATELY COMPLEX)

IV  
(VERY COMPLICATED)



LIKELIHOOD OF MALIGNANCY

MANAGEMENT

0%

Benign; no follow-up needed

0%

Benign; no follow-up needed

10-12%

F/U  
Follow-up imaging

50-60%

Resection

Malignant until proven otherwise (100%)

Resection

GAMS

Van Nuys grading

DCIS

Feature	Score 1	Score 2	Score 3
Size (mm)	≤15	16-40	>40
Margins (mm)	≥10	1-9	<1
Grade and necrosis	Low or intermediate without necrosis	Low or intermediate with necrosis	High grade with/without necrosis
Age (years)	>60	40-60	<40

Thyroid

Prognosis (AGES and AMES scoring system)

	Low risk	High risk
Age	< 45 yr	> 45 yr
Size	< 4 cm	> 4 cm
Extra thyroid extension	No	Yes
Metastasis (distal)	No	Yes
High grade	No	Yes

Shraddha

MACIS: post of score  
Completeness of Sx

Thyoma

Masaoka stage	Criteria
I	Encapsulated tumor
IIA	Microscopic capsular invasion
IIB	Macroscopic invasion into fatty tissue
III	Invasion into great vessels, pericardium, or lung
IVA	Pleural and/or pericardial dissemination
IVB	Lymphatic or hematogenous metastases

# Q. Which of the following is not included in BISAP?

- a) BUN > 25
- b) SIRS
- c) Age >60yrs
- d) GCS <15
- e) ~~Pseudocyst~~

## BISAP score

**BUN** • BUN >25 mg/dL (8.9 mmol/L) (1 point)

**Impaired mental status** • Abnormal mental status with a Glasgow coma score <15 (1 point)

**SIRS** • Evidence of SIRS (systemic inflammatory response syndrome) (1 point)

**Age** • age >60 years old (1 point)

**Pleural effusion** • Imaging study reveals pleural effusion (1 point)

**0-2 Points:** Lower mortality (<2 percent)

**3-5 Points:** Higher mortality (>15 percent)

**CTSI / Balthazar**

### Pancreatic inflammation

- 0: normal pancreas
- 2: intrinsic pancreatic abnormalities with or without inflammatory changes in peripancreatic fat
- 4: pancreatic or peripancreatic fluid collection or peripancreatic fat necrosis

### Pancreatic necrosis

- 0: none
- 2: 30% or less
- 4: more than 30%

### Extrapancreatic complications

- 2: one or more of pleural effusion, ascites, vascular complications, parenchymal complications
- 4: more than one of pleural effusion, ascites, vascular complications, parenchymal complications

## Ranson Criteria and Prognosis

### At Admission

- Age > 55 years
- **Leukocyte count** >  $16 \times 10^3/\text{mCL}$
- Blood glucose > 200 mg/dL
- Serum LDH > 350 IU/L
- Serum AST > 250 IU/L

### At 48 hours

- Decrease in hematocrit > 10%
- Increase in BUN of > 8 mg/dL
- Serum calcium less than 8 mg/dL
- PaO<sub>2</sub> < 60 mm Hg
- Base deficit > 4 mEq/L
- Estimated fluid sequestration > 6,000 mL

## Modified Glasgow/PANCREAS score

- PaO<sub>2</sub> < 8kPa (60mmhg)
- Age > 55 years
- Neutrophils: WBC >15 x10<sup>9</sup>/l
- Calcium < 2mmol/l
- Renal function: (Urea > 16mmol/l)
- Enzymes: (AST/ALT > 200 iu/L or LDH > 600 iu/L)
- Albumin < 32g/l
- Sugar: (Glucose >10mmol/L)

# MISCELLANEOUS SCORES

*pre-op ptnt*

The MUST tool

*Nutrition*

(i) BMI (kg/M2)  
 0 = >20.0  
 1 = 18.5-20.0  
 2 = <18.5

(ii) Weight loss in 3-6 months  
 0 = <5%  
 1 = 5-10%  
 2 = >10%

(iii) Acute disease effect:  
 little nutrition intake for >5 days

## Thoracoscore

Age (years)

Gender (male)

ASA

Performance status

Dyspnoea score

Priority of surgery

Procedure class

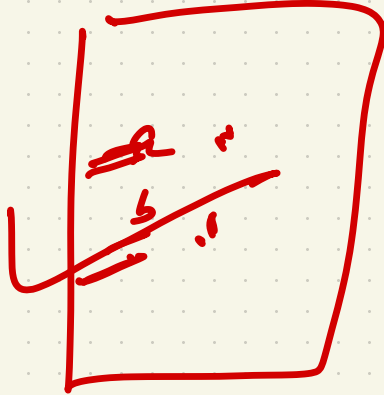
Diagnosis group

\*Not complication of surgery

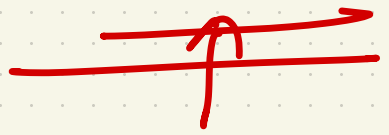
Maastricht	Presentation of Death	DCD Situation
I	Dead on arrival	Uncontrolled
II	Unsuccessful resuscitation	Uncontrolled
III	* Anticipated cardiac arrest	Controlled
IV	* Cardiac arrest in brain dead donor	Controlled
V	Unexpected cardiac arrest in a hospital inpatient	Uncontrolled

*Limbs system*  
*Brain*

# ① Limbic system

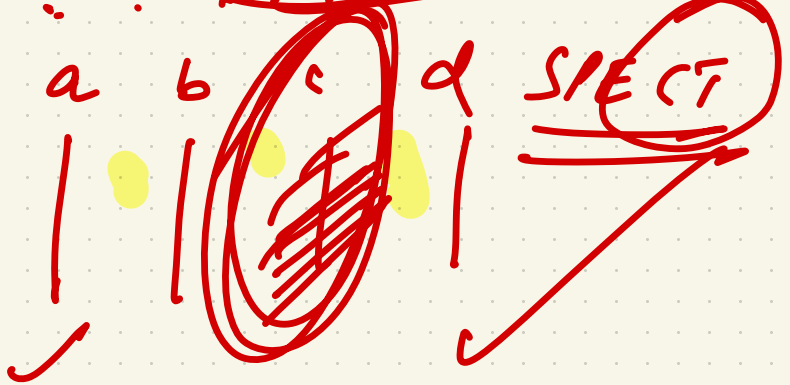


Instructions



TRUST

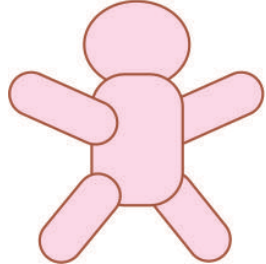
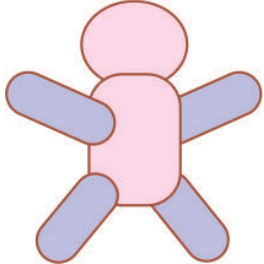
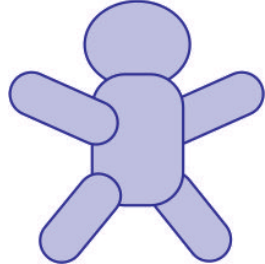
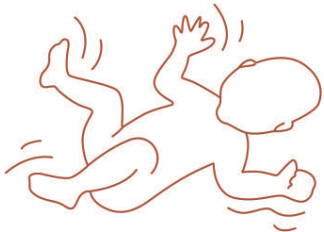


TC 99




# PEDIATRICS

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# APGAR

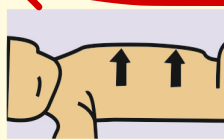
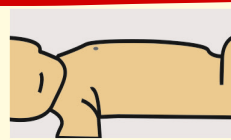
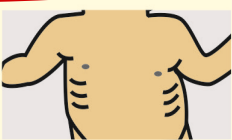


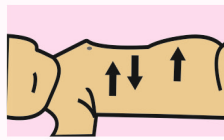
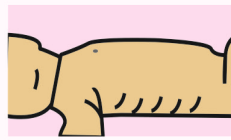
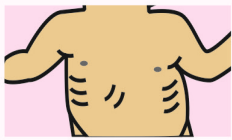

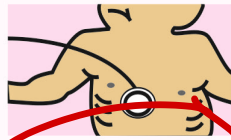
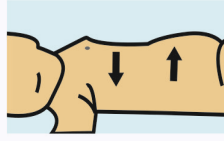
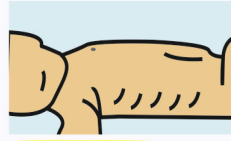
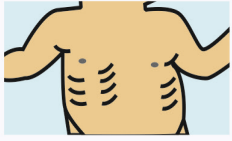

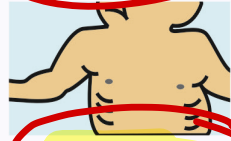
Agar Score	Score 2	Score 1	Score 0
<i>Appearance</i>	 <u>Pink</u>	 <u>Extremities Blue</u>	 <u>Pale or Blue</u>
<i>Pulse</i>	<u>&gt;100 bpm</u>	<u>&lt;100 bpm</u>	<u>No pulse</u>
<i>Grimace</i>	<u>Cries and pulls away</u>	<u>Grimaces or weak cry</u>	<u>No response to stimulation</u>
<i>Activity</i>	 <u>Active movement</u>	 <u>Arms, legs flexed</u>	 <u>No movement</u>
<i>Respiratory effort</i>	<u>Strong cry</u>	<u>Slow, irregular</u>	<u>No breathing</u>

Prognostic score  
Timing: 1, 5 min  
 Severe: < 3  


# Neonatal respiratory distress

*Silverman Anderson Preterm*

*Downe - term / preterm*

	UPPER CHEST MOVEMENT	LOWER CHEST RETRACTIONS	XIPHOID RETRACTIONS	NARES DILATATION	EXPIRATORY GRUNT
Grade 0	 Synchronized	 None	 None	 None	 None
Grade 1	 Lag on inspiration	 Just visible	 Just visible	 Just visible	 Heard with stethoscope
Grade 2	 See-Saw	 Easily seen	 Easily seen	 Easily seen	 Heard by ear
	Inspiratory			Expiratory	

*10*

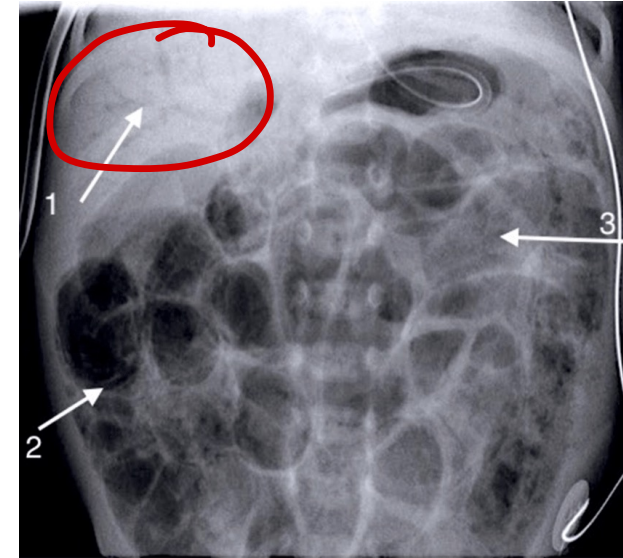
Score	0	1	2
<b>Respirate Rate</b>	<60	60-80	>80
<b>Cyanosis</b>	None	No cyanosis with oxygen	Cyanosis with oxygen
<b>Retractions</b>	None	Mild	Moderate to severe
<b>Grunting</b>	None	Audible with stethoscope	Audible without stethoscope
<b>Air Entry</b>	Good	Decreased	Barely Audible

# NEC

Mod Bell Ć

R/F: Preterm, Formula, PDA

Stage	Systemic Signs	Treatment
IA	Bradycardia, Apnea, Temperature instability <i>BAT</i>	NPO, antibiotics 3 days
<b>IB</b>	Grossly bloody stool	Same as IA
IIA	Absent bowel sounds <b>Pneumatosis intestinalis</b>	NPO, antibiotics 7 to 10 days
IIB	Metabolic acidosis, Thrombocytopenia <b>PV gas</b>	NPO, antibiotics 14 days
IIIA	Bradycardia Apnea, Acidosis <b>DIC</b>	NPO, antibiotic 14 days, fluid resuscitation, inotropic support
<b>IIIB</b>	<b>Pneumoperitoneum</b>	Surgery



Rot ball

IA - BAT

B - Bloody

2A - PT

B - PV

III a - DIC

b - perform

# Sarnat - HIE

Severity	Stage 1 (Mild)	Stage 2 (Moderate)	Stage 3 (Severe)
Level of consciousness	Hyperalert	Lethargic or Obtunded	Stupor or coma
Activity	Normal	Decreased	Absent
<b>Neuromuscular Control</b>			
Muscle Tone	Normal	Mild hypotonia	Flaccid
Posture	Mild distal flexion	Strong distal flexion	Intermittent decerebration
Stretch Reflexes	Overactive	Overactive	Decreased or absent
<b>Complex or primitive reflexes</b>			
Suck	Weak	Weak or absent	Absent
Moro (Startle)	Strong	Weak	Absent
Tonic neck	Slight	Strong	Absent
<b>Autonomic Function</b>			
Pupils	Mydriasis	Miosis	Variable
Heart Rate	Tachycardia	Bradycardia	Variable
Seizures	None	Common	Uncommon

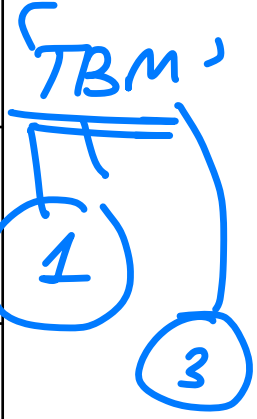
<b>Parameters</b>	<b>No Dehydration</b>	<b>Some Dehydration</b>	<b>Severe Dehydration</b>
<b>Appearance</b>	Well, alert	Restless, irritable	Lethargic, unconscious
<b>Eyes</b>	Normal	Sunken	Very sunken
<b>Thirst</b>	Drinks normally, not thirsty	Thirsty, drinks eagerly	Drinks poorly or not able to drink
<b>Skin pinch</b>	Goes back quickly (<1 second )	Goes back slowly (1 second)	Goes back very slowly (2 seconds)

**OBG**

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# BPP

Biophysical Parameter	Normal	Abnormal
Qualitative AFI	AFI + between 10 and 20	AFI less than 10 or more than 20
Reactive <u>FHR</u> <i>NSF</i>	Two episodes of <u>FHR acceleration of <math>\geq 15</math> beats/minute</u> and of <u>at least 15 sec</u>	Less than two episodes
Fetal tone	At least 1 episode of active extension with return to flexion of fetal limb (s) or trunk	Either slow or absent fetal movement
Fetal breathing	At least 1 episode of fetal breathing in 30min	Absent
Gross body movement	At least 3 discrete body/limb movement in 30 minutes	2 or fewer episodes of body /limb movements in 30 minutes



Modified BPP: AFI + NSF

# ~~Bishop~~ / Mod Bishop

Cervical Feature	0	1	2	3
Cervical dilatation	< 1cm	1-2 cm	2-4 cm	> 4cm
Cervical length	4 cm	2-4 cm	1-2 cm	< 1 cm
Effacement*	<u>&lt; 30 %</u>	<u>40 - 50 %</u>	<u>60 - 70 %</u>	<u>≥ 80 %</u>
Station of presenting part	-3 cm	-2 cm	-1/0 cm	+1/+2 cm
Consistency of cervix	Firm	Average	Soft	
Position of cervix	Posterior	Mid position	Anterior	

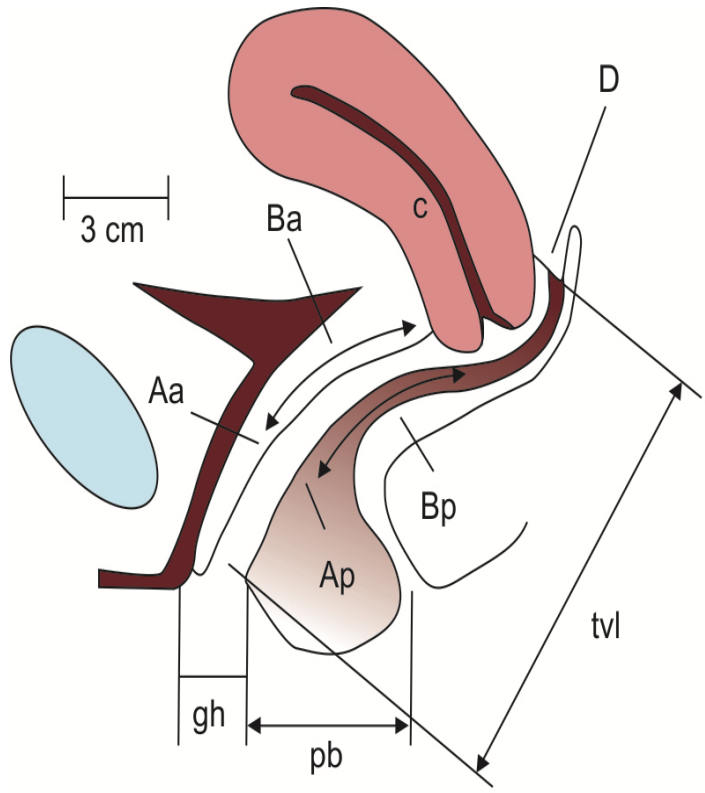
#CC

# APLA - Sapporo / Sydney.

Clinical Criteria	Laboratory Criteria
<ul style="list-style-type: none"><li>• <u>Vascular Thrombosis</u></li><li>• <u>Pregnancy Morbidity:</u><ul style="list-style-type: none"><li>a) Premature birth at <math>\leq 34</math> wks. due to preeclampsia</li><li>b) <math>\geq 3</math> consecutive abortions at <math>&lt; 10</math> wks.</li><li>c) <u>Placental insufficiency</u> at <math>&lt; 34</math> wks.</li></ul></li></ul>	<ul style="list-style-type: none"><li>• Anti-Cardiolipin IgG/M</li><li>• Lupus Anticoagulant (LAC)</li><li>• <u>Anti-B2 glycoprotein</u></li></ul> <p>2 x 12 wks apart</p>

3 x 1

1st T  
2nd T  
32 wks placental insuff



Anterior wall Aa	Anterior wall Ba	Cervix or cuff C
Genital hiatus gh	Perineal body pb	Total vaginal length tvL
Posterior wall Ap	Posterior wall Bp	Posterior fornix D

Q. pop

Prolapse

# MEDICINE

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# SLE

Clinical domains	Points	Immunologic domains	Points
<i>Constitutional domain</i> Fever	2	<i>Antiphospholipid antibody domain</i> Anticardiolipin IgG > 40GPL or anti-B2GP1 IgG > 40 units or lupus anticoagulant	2
<i>Cutaneous domain</i> Non-scarring alopecia Oral ulcer Subacute cutaneous or discoid lupus Acute cutaneous lupus	2 2 4 6	<i>Complement proteins domain</i> Low C3 or Low c4 Low C3 and Low c4	3 4
<i>Arthritis domain</i> Synovitis tenderness in a at least 2 joints	6	<i>Highly specific antibodies domain</i> Anti- dsDNA antibody Anti- Sm antibody	6 6
<i>Neurologic domain</i> Delirium Psychosis Seizure	2 3 5	<b>REFERENCES: Aringer et al Abstract #2928. 2018 ACR/ARHP Annual Meeting</b> ✓ Classification criteria are not diagnosis criteria	
<i>Serositis domain</i> Pleural or pericardial effusion Acute pericarditis	5 6		
<i>Hematologic domain</i> Leukopenia Thrombocytopenia Autoimmune hemolysis	3 4 4	✓ Patient must have >10point to be classified as SLE ✓ Item can only be counted for classification is there is no more likely cause	
<i>Renal domain</i> Proteinuria >0.5g/24hr Class II or V lupus nephritis Class III or IV lupus nephritis	4 8 10	✓ Only the highest criterion in a given domain count ✓ SLE classification requires points from at least one clinical domain	

Mod Well's

DIAGNOSTIC CRITERIA FOR ARDS <span style="float: right;">Mod. Berlin</span>			
SEVERITY: OXYGENATION	ONSET	CHEST RADIOGRAP H	ABSENCE OF LEFT ARTRIAL HYPERTENSION
<p>Mild: <u>201 - 300</u>                      PaO<sub>2</sub>/FIO<sub>2</sub></p> <p>Moderate: <u>100 - 200</u></p> <p>Severe: <u>&lt; 100</u></p>	Acute: within <u>1 week</u> of clinical insult or new or worsening respiratory symptoms	Bilateral opacities consistent with pulmonary edema not fully explain by effusions, lobar/lung collapse or nodules	<p>↓</p> <p><u>ARDS</u></p>

High Clinical Likelihood of Pulmonary Embolism (PE) if Point Score Exceeds 4	
CLINICAL VARIABLE	PE SCORE
Signs and symptoms of DVT	3.0
Alternative diagnosis less likely than PE	3.0
Heart rate >100/min	1.5
Immobilization >3 days; surgery within 4 weeks	1.5
Prior PE or DVT	1.5
Hemoptysis	1.0
Cancer	1.0

ABPA: Rosenberg

Primary criteria (1-6 suggestive, +7 definite)

1. Episodic bronchial obstruction
2. Peripheral eosinophilia
3. Positive immediate skin test to *Aspergillus*
4. Positive precipitin test to *Aspergillus*
5. Increased total serum IgE
6. History of transient or fixed lung infiltrates
7. Proximal bronchiectasis

Secondary (supportive) criteria

1. Brown plugs/flecks in sputum
2. Positive late (6-12 h/ Arthus) skin test to *Aspergillus*

0-1 : Amoxicillin

CURB-65 Scoring	
Symptom	Points
Confusion	1
Urea: BUN >19 mg/dL (>7 mmol/L)	1
Respiratory rate ≥30 breaths /min	1
Systolic BP <90 mm Hg or diastolic BP <60 mm Hg	1
Age ≥ 65 years	1

AFS : Bent & Muhl

Major	Minor
Type I hypersensitivity	Asthma
Nasal polyposis	Unilateral disease
Characteristic CT findings	Bone erosion
Eosinophilic mucin without invasion	Fungal cultures
Positive fungal stain	Charcot-Leyden crystals
	Serum eosinophilia

Table 6 Calculate ABCD<sup>2</sup> score

TIA

ABCD <sup>2</sup> score	Points
Age > 60 years	1
BP = 140/90 mmHg at initial evaluation	1
Clinical features of the TIA	
Speech disturbance without weakness, or	1
Unilateral weakness	2
Duration of symptoms	
10–59 min, or	1
> 60 min	2
Diabetes mellitus in patient's history	1

CHA<sub>2</sub>DS<sub>2</sub>-VASc Score<sup>15,16</sup>

A fib

C	Congestive Heart Failure	1 point
H	Hypertension	1 point
A <sub>2</sub>	Age ≥75 y	2 points
D	Diabetes	1 point
S <sub>2</sub>	Stroke	2 points
V	Vascular disease	1 point
A	Age ≥65 y	1 point
Sc	Sex category, female	1 point

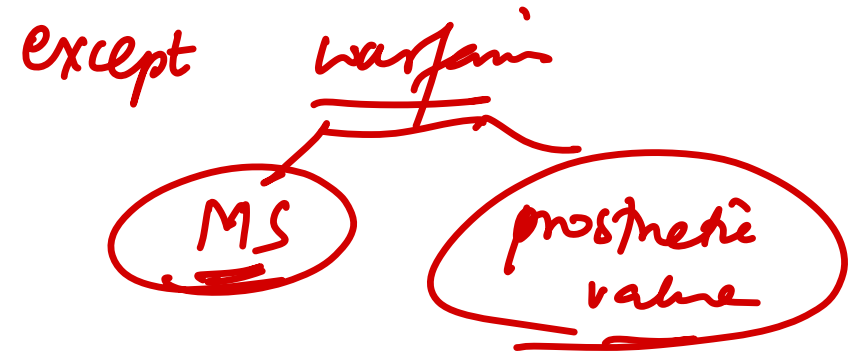
Maximum total score = 9 points

ESC 2010 Anticoagulation Recommendations:

Score=0 no therapy

Score=1 Aspirin

Score ≥ 2 oral anticoagulation. : NOAC



# West Haven Hep Ench

Grade	Level of consciousness	Personality and intellect	Neurologic signs	Electroencephalogram (EEG)
1	Day/night sleep reversal, restlessness	Forgetfulness mild confusion, agitation, irritability	Tremor, apraxia, incoordination, impaired handwriting	
2	Lethargy, slowed response	Disorientation to time, loss of inhibition, inappropriate behavior	Asterixis, dysarthria, ataxia, hypoactive reflexes	
3	Somnolence, confusion	Disorientation to place, aggressive behavior	Asterixis, muscular rigidity, Babinski signs, hyperactive reflexes	Triphasic waves (5 Hz)
4	Coma	None	Decerebration	Delta/slow wave activity

EEG