1) Important Points of history taking
   I) **Control** situation
      1) Pen and notepad
      2) Good timing
         ➔Do the right thing at the right time
            →Depends on patient mental, physical situation
         ➔When to ask and when to answer
            →Depends on patient characteristics
      3) Privacy
      4) Quiet, comfortable environment
      5) Avoid distraction
   II) Obtain **most** information
   III) Extract **useful** information
   ⇨ About 20 min

2) Attitude of History taking
   I) Establish communication
   II) Show you are trying to help
   III) Watch facial expression, posture
   IV) Observe reaction
   V) Read between lines for true message

3) Points to AVOID in history taking
   I) Hostility
   II) Impatience
   III) Misled by PATIENTS interpretation, diagnosis
   IV) Interruption
   V) Leading questions ***
      ➔Should use **OPEN QUESTION**
         →**MC Q is preferred**

4) Procedure of history taking
   a) Introduction
      I) Introduce yourself
      II) Ask patients name and **REMEMBER**
      III) Record age, occupation
      IV) **SHORT FRIENDLY** chat

b) Presenting symptoms

I) Clearly define **CHIEF COMPLAINT and WHY COMING TODAY**

II) Date, duration, hidden symptoms

c) Analysis of principal of symptoms (Present illness history)

I)	**Site**	II)	**Progression**
III)	**Type**	IV)	**Radiation**
V)	**Onset**	VI)	**Effect**
VII)	**Characteristic**	VIII)	**Duration**
IX)	**Provoking Factors**	X)	**Severity**
XI)	**Relieving Factors**	**XII)**	**Accompaniment**

d) Past medical history

I) All illness and operations

➔Complication, progression, date, duration

II) Present treatments

e) Medication and allergies

I) Side effect

II) Allergies

➔Sea food allergies – May be iodine allergies ***

➔Egg allergies – Concerned before vaccine injection

➔Pork allergies – Concerned before

f) Family History

➔**AGE** and **DATE** ****

➔Infection and Genetic

➔Direct / indirect effects **

g) Review of Systems

➔Summarize, clarify, link, enquire extra, Detect hidden

h) Social and personal history

➔Occupation, smoking, drinking, home, psychological profile, eating

➔Travel

➔Caring Status ****

i) Summary

➔Problem

➔Diagnosis

➔PLAN

j) Record

➔Name, ID number, year old, gnder

5) Physical exam 5C

➔Consent

→By action / 口頭

➔comfort, calm, controlled, complete

6) Physical exam procedure

I) Inspection

II) Palpation

III) Percussion

IV) Auscultation

7) Part of physical exam

a) General

➔Vital stats

→BP, age, gender etc.

b) Regional

I) <u>Neurological</u>

➔Orientation, Mental level, consciousness, muscle power etc.

II) <u>Physiological</u>

➔Ditressed, mood, memory etc.

III) <u>Nutritional</u>

➔Obese, well/under nourished, Cachexic (肌肉萎縮)

IV) <u>Circulation</u>

➔Central/peripheral cyanosis, pallor, jaundice, ankle edema

V) <u>Cutaneuos</u>

➔Inflammation, induration, ulceration, scratch marks

VI) <u>Lymphatic</u>

➔Palpation of lymph nodes in 2 or mo re areas

VII) <u>Specific</u>

➔Spider naevi: liver disease

➔Cushingoid: hyper-secretion of adrenaline

8) Haematemesis 嘔血 and Melena

➔Can be from many origins

a) Background

➔Blood + Acid = Brown (**Coffee Ground****)

➔Blood + Bacteria + Time = Black (**Melena)**

➔Usually tarry (爛而粘)

➔Usually

b) **History**

➔

c) **Physical Examination**

d) **Intensive observation**

e) Measures

I) Protect airway

II) Blood tests

III) Fluid resuscitation

➔Don't give too much (Concentration too low)

IV) Blood transfusion

f) **Investigation**

I) Blood tests

II) Upper endoscopy → Very efficient

III) Enteroscopy → Very difficult and risky !!!!!!

IV) Colonoscopy → Not applicable in urgent cases

V) Angiogram → Up to 1ml/min, but very precise

VI) RBC Isotope Scan → Up to 0.5ml / min, but not precise

VII) CT Scan

VIII) Laparotomy 剖腹 → Directly see / with Enteroscopy

g) **Treatment**

9) Carcinoma of Stomach

➔Mostly Adenocarcinoma

➔Related to helicobactor Pylori

a) <u>Symptoms</u>

I) Dyspepsia and ulcer symptoms

II) Anoerexia 厭食

b) <u>Treatment</u>

I) Gastrectomy

II) Surgical Bypass

III) Systemic chemotherapy

➔Usually not effective

IV) Local Intra-arterial Chemotherapy

➔More effective

→Higher dosage can be used

→No degradation by Liver

10) Dysphagia 吞咽困難

a) Causes

I) Bulbar palsy (Cranial nerve)

II) Tongue abnormalities

III) Ludwig's Angina (下頜痛**)**

IV) Esophagus abnormalities

V) Cardio esophageal Junction Spasm

Symptoms

11) **Carcinoma of Esophagus**

➔Mainly Squamous cell carcinoma in Chinese (**Inherited disease)**

→ Foreigners Adenocarcinoma (**By regurgitation of gastric juice)**

a) <u>Symptoms</u>

I) Progressive dysphagia

b) <u>Treatment</u>

I) esophagectomy

II) Surgical Bypass

III) Systemic chemotherapy

➔Usually not effective

IV) **Radiotherapy**

V) **Endoscopic Stenting (**支架**)**

12) Intestinal Obstruction

a) Pathophysiology

➔Distension of bowel with fluid and gas

→Excesive peristalsis

→Decreased absorption and extravasation

→Decreased blood supply

→Peforation

→Peritonitis

b) Symptoms

1) Colicky abdominal pain
2) Constipation
3) Vomiting
4) Abdominal distension
5) Other physical findings

➔Dehydration, visible peristalsis, hernia, hyperactive bowel sounds

c) General management

1) Fluid replacement
2) NPO (Don't eat)
3) Nasogastric tube
4) Monitor vital signs
5) Correct electrolyte disturbance

d) Etiology

1) Adhesion 60%

➔Mostly caused by previous surgery

➔**Surgery(Enterolysis) / conservative treatment**

→Now can **gastrographin (造影)**

2) External hernia 20%

➔**Treatment**

→Try to push it back, it not just surgery and close the gap ***

I) Inguinal hernia

II) Femoral hernia

III) Incision hernia

3) Virgin abdomen 20%

➔**Treatment:** Laparotomy ***

I) Intussusception (套腸)

II) Volvulus(扭結)

III) Gallstone ileus

➔Sign of pneumobilia

IV) **Small bowel tumour**

V) **Bezoar**

➔Ingestion of foreign body

VI) **Internal hernia (Obturator hernia)**

➔Cannot be seen outside

13) Large Bowel Obstruction

a) Etiology

I) Carcinoma (90%)

➔X-ray + CT / colonoscopy to iden

➔**Treatment**

→If near to rectus, **Colonoscopy + Stenting**

→If at the upper intestine

→Surgery

1) Resection + Reconnect

2) Resection + Stoma

3) Bypass

4) Stoma

II) Volvulus (5%)

➔Mainly at sigmoid colon

➔Begins with swelling at sigmoid colon

➔**Treatment**

→Decompression (抽氣 + 扭番正), **80% successful rate**

→Then undergo surgery to cut a section of colon

→Reduce chance of recurrence

III) Pseudo-obstruction

➔Some part of intestine cannot undergo peristalsis

➔**Just decompression**

IV) Urgent colonoscopy within 24 hours

14) Hematuria

a) **Neoplasm**

I) Kidney

II) Ureter

III) Bladder

IV) Prostate

V) Urethra

b) **Calculi (石)**

c) **Trauma**

➔May be by surgery

d) **Infection**

e) **Miscellaneuous**

I) Benign Prostatic hyperplasia ****

15) Ischaemic claudication 跛行

➔Pain occur during exercise

➔Primary cause is atherosclerosis

16) Ischaemic Rest Pain

➔Pain in forefoot, toes, or ankle

➔Aggravated by elevating the leg

➔Improved by placing the leg in dependent position

➔Caused by hypoxia of the cutaneous nerves

17) Iscahemic Ulcers / gangrene

➔Usually in toes / heel / pressure points

➔Ulcers are unhealthy with punched out edges

➔**Lack of granulation tissues**

➔**Painful** (apart from diabetes)

➔**If due to diabetics, may lead to**

I) Peripheral arterial disease

II) Peripheral neuropathy

III) Prone to sepsis

IV) Poor healing

V) Poor glycaemic control

18) Examination of patients with peripheral vascular disease

a) Inspection

I) Intermittent claudication

II) Severe lower limb ischaemia

➔Atrophic nails / skin

➔Previous toe amputation

➔Ulcers: toe, heel, ankle, pressure points of foot

➔Surgical scars for bypass surgery

➔Pale on elevation and dependency hyperaemia (Buerger's test)

b) Palpation

I) Pulse

➔Femorals

➔Popliteals

➔Pedal pulses

II) Capillary return of toes

III) Temperature

c) Auscultation

I) Bruits

II) Cardiac bruits

III) Cardiac murmur

d) Ankle brachial pressure index (ABI)

➔Normal ABI is 1.0 to 1.1

➔**If lower, worse arterial disease**

➔Claudication 0.6 +- 0.2

➔Rest pain 0.3 +- 0.1

➔Tissue necrosis 0.1 +- 0.1

e) Other tests

I) Duplex ultrasound

➔Limitations

1) User dependent, machine dependent
2) Obscured by dressings / wounds
3) Time consuming
4) Atherosclerosis

II) Angiogram

➔CT angiogram / MR angiogram

➔Intra-arterial digital subtracted angiogram IADSA ((INVASIVE)

1) Name the artery and divided into third
2) Describe degree of stenosis
3) Length of stenosis
4) Run-off vessels

III)

f) Invasive tests

19) 6P of Acute lower limb ischaemia

⇨ **Have to undergo surgery in the first 6 hours !!!!!**

I) Pain

II) Perishing cold

III) Pallor

IV) Pulselessness

V) Parasthaesia

VI) Paralysis

20) Varicose Veins

a) Basics

➔More common in women

→Preganancy and hormonal factors

➔Mainly related to Great saphenous vein (80%)

➔Related to increased venous pressure, valve dysfunction

==

b) Examination

I) Standing up

II) Distribution

III) Any complications

➔Itchiness, Pigmentation, Ulcerations

IV) Tourniquet tests

V) Pulses

VI) Duplex ultrasound

➔Long / short saphenous vein

➔Deep veins

➔Perforator Vein

c) Stages

➔With C1 to C6

d) Complication

➔Chronic ulcers may change into malignancy

→Need biopsy

21) Investigation in Surgical patients

a) General principles

I) Aid / Confirm diagnosis

II) Plan for treatment options

III) Assess progress of disease & response to treatment

only be done if degree of suspicion high
consequence of missing diagnosis serious

b) Main methods

CT scan fo liver cancer

I) Laboratory

1) Complete blood count

➔Haemoglobin, WBC count, bone marrow, platelet count

2) Clotting picture (APTT / INR)

➔Deranged as result of sepsis, liver disease, antigoagulation drugs, herbal medicine

➔Unsafe for operation if deranged

3) Renal function test (RFT)

➔Na, K-electrolyte balance, hydration

➔Urea/Creatinine (Direct kidney function)

4) Liver function test (LFT)

➔Bilirubin, ALP

➔Liver enzymes (ALT, AS)

➔Albumin (Reflection of function of liver and nutrition status)

5) Glucose

➔By Hemstix test **

6) Tumour marker

a) <u>Alpha feto-protein (AFP)</u>

➔Hepatocellular, cirrhosis, testicular tumor

b) <u>Prostate specific antigen (PSA)</u>

➔Prostatic cancer

c) <u>Carcinoembryonic antigen (胚胎原蛋白)</u>

➔Cancer of stomach, large and small intestine,

➔Also breast , lung cancers

➔Smoking

d) <u>Ca19.9</u>

➔Cancer of pancreas

e) <u>Ca125</u>

➔Cancer of uterus

7) **Infection marker**

➔Hepatitis , HIV, Syphilis

8) **Blood culture**

➔Sepsis: Replication of bacteria in blood

➔Important in identifying cause of sepsis and administration of correct antibiotics

9) **Other body fluids examination**

➔Urine, sputum, abdominal fluid, pleural fluid, CSF

→**Infection: WBC**

→**Red cells:** Bleeding (inflammation ? trauma ? malignancy?)

→Malignant cells

II) **Radiology** (Imaging of various organs)

1) Plain X ray

➔Advantages: Cheap,
Good to show bone, stone, foreign body
air-tissue interface

➔Disadvantage: Radiation

2) Contrast X-ray

➔**Contrast** For mucosal lesion in luminal organ

→**E.g. Barium swallow**

➔Disadvantage: Radiation, aspiration of contrast, cost

3) Angiogram

➔Contrast in the vessels

→Diagnosis Stenosis, Aneurysm

➔Side effect

→Vessel injury from puncture

→Bleeding

→Contrast toxicity

→Radiation

4) Ultrasound

➔Good for solid organ, blood vessels and fluid collection

➔**No side effect*****

➔Accuracy of result depends on operator

5) **CT scan**

➔Multiple X ray constructing 3-D images

➔Disadvantages: Expensive, toxic from contrast, high dose radiation

6) **MRI**

➔Proton excited/aligned by magnetic field and then relax & returned

➔Quality depends on hydrogen content ** (Water, fat)

III) **Endoscopy** (Visualize and examine inside of **luminal** structure)

➔Colonoscopy, Bronchoscopy, Etc.

➔For biopsy

➔For Therapeutic procedure

→Removal of polyp, hemeostasis

IV) Cytology / Histopathology

22) Jaundice

⇨ Yellow colour of skin due to high level of serum bilirubin

a) Cause

I) Pre-hepatic

➔3 Hepatic veins / IVC obstruction

→**Budd Chiari, suprahepatic IVC obstruction, cadiac causes**

II) Hepatic

➔Any disease affecting liver cells

→Hepatitis

→Viral, drug, herbal medicine, autoimmune

III) Post-hepatic

➔Gall bladder disease

→**Normally CBD obstruction (Stone / tumour)**

→E.g. Klastskin tumour

b) GallStones

I) Epidemiology

➔24% women, 12% men, 10-30% symptomatic

II) Types of gallstone

1) Cholesterol stones
2) Pigment stones

➔From too many bilirubin

➔Black colour

III) **Risk factors**

1) Females, middle age, obesity

2) Failure to empty file from gallbladder (Pregnancy / previous gastrectomy)

3) Liver cirrhosis

4) Haemolytic anaemia, haemolytic disorders

5) Diabetes mellitus

6) Bone marrow transplant / solid organ transplant

7) On long-term parenteral nutrition

IV) **Investigation**

1) Liver CT scan

V) **Management**

1) Laparoscopic cholecystectomy

2) Percutaneous transhepatic cholestectomy

➔Dangerous, but a must if Inflammation serious

VI) **Complications**

1) Acute cholangitis 膽管炎

2) Acute pancreatitis 胰腺炎

➔***Sudden onset epigastric pain with radiation to the back

➔Usually associated with nausea and vomiting

➔Can lead to pseudocyst, pleural effusion, ascites, necrotizing / haemorrphagic

➔Treat by pancreatic necrosectomy

3) Empyema of gallbladder 膿

4) Gallbladder gangrene (壞死)

5) Mucocele of gallbladder 黏液滿佈

6) Choledochoduodenal fistula

c) Cholangiocarcinoma 膽管癌

➔Only yellow colour with no others symptoms

➔Painless, weight loss, loss of appetite

➔**1Year survival 60%, 5year survival 20%v**

➔**With** type 1, 2,3,4

I) Treatment

➔**Curative**: hepatectomy + bile duct excision + hilar lymph node clearance

➔**Palliative:** Radiotherapy, chemotherapy, metallic stenting / bypass

➔**Conservative**

d) Recurrent pyogenic cholangitis (RPC)

➔Characterised by repeated attacks of bacterial infusion

I) Epidermiology

➔Common in south east asia

➔Male preponderance

➔Young and lower socio-economic groups

II) Pathogenesis

➔Entry of bowel organisms into bile ducts

➔Initiate inflammation in portal triad resulting in necrosis of hepatocytes

➔**Cholangitis +** Narrowing of bile duct

III) Causative organism : Clonorchis sinesis (Liver fluke / flatworm)

IV) Stone in RPC

➔Bilirubinate stones

➔Small stones recurrent

V) Clinical presentation

➔Pain + Fever + Jaundice

VI) Investigation

➔CT scan, MRI, ERCP (膽管鏡)

VII) Management

1) Acute attack

➔IV Antibiotics + Rehydration + Analgesics

➔30% can be treated by antibiotics

➔Surgery (Drainage + Removal of stones + Exploration)

➔Hepaticojejunostomy + Cutaneous stoma

2) Definite treatment

➔To remove biliary ductal stone

➔To enlarge or bypass strictures

➔To Provide adequate biliary drainage

➔To provide permanent percutaneous access to the biliary tract

VIII) Complication of RPC

➔Liver abscess, Acute pancreatitis, Portal vein cirrhosis, Cholangiocarcinoma

e) Pancreatic Cancer

➔Highly lethal cancer

➔Peak age of onset: Above 60s

➔**Early cancer is usually asymptomatic**

➔**By Whipple operation**

f)

23)