



Clinical Skills

Lecture no:

Title:

Clinical Procedures

By:



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وَقُلْ رَبِّ زِدْنِي عِلْمًا



Clinical Skills Course I
Clinical Procedures
lecture 1

**Hand Washing, Vital Signs,
Blood Pressure**

Reema AL- Attari

← موضوع مهم ، عليه اسئلة
سوات كثير

Hand washing

• تعقيم اليدين قبل وبعد التعامل مع المريض

- **Hand hygiene must be performed:**

a) immediately **before** every patient contact

b) **after touching** anything in the bed space area i.e. within the bed curtain area

داخل مطقة ستارة السرير

There are many products that we can use to perform good hand hygiene such as:

Liquid Soap

مهم نصير بين الثلاث أنواع:

Hibiscrub

Spirigel

Liquid Soap

Will remove most micro-organisms but
not all



Hibiscrub

Will remove most micro-organisms
مصاد للميكروبات

Contains an antimicrobial agent which, ^{الاستخدام}
with continual use, has a cumulative effect ^{التراكمي}

Will remove organic matter from the hands

يسبب مشاكل بالجلد ←



• مفعوله قوي

• لا يستخدم اذا كانت ايديك متسخة بشكل واضح ، او عليها مواد عضوية مثل سوائل الجسم

Spirigel

Quick and easy way to decontaminate socially clean hands, 99% effective in thirty seconds

Cannot be used if hands are visibly soiled

Do not use if you have dealt with organic matter, e.g.
• body fluids

Should NOT be used in cases of **Clostridium Difficile-associated diarrhoea or viral diarrhoea and vomiting** –
use water and Hibiscrub in these cases

← لا يستخدم بهذه الحالات.
• هنا نستخدم الماء و الكركديه.



ماهن اليد

ظهر اليد



1. Palm to palm



2. Backs of hands

العراعات بين
الأصابع

الطرف الأصابع



3. Interdigital spaces



4. Fingertips

الابهام و
المعصمين

الأطراف



5. Thumbs and wrists



6. Nails

*أول خطوة هي تبييل اليدين بالماء بعدها وضع الصابون واتباع الخطوات كما هو موضح في الصور والتأكد من وصول الصابون إلى جميع أجزاء اليد.

*بعد الإنتهاء من غسل اليدين يمنع إغلاق صنوبر المياه باليدين النظيفتين إما يتم إغلاقها بالكوع أو بما تم تنشيف اليدين به سواء منشفة أو محارم.

*يجب أن يأخذ إجراء غسل اليدين من 40-60 second تجنب استخدام ماء ساخن لأنه قد يزيد خطر الإصابة بالتهاب الجلد.

*يجب أن تحافظ على أظافرك أقصر من 0,2 بوصة (إنش) أو نصف سنتيمتر .

(الزامي) *Hand washing is not an option, it is mandatory

*أدوات غسل اليدين :

1-alcohol-based hand-rub formulation(contain 60-80%ethanol isopropanol or n-propanol)

2-soup

3-water

4-drying agents

رسوات

حفظ مهم

Points to remember:

الاذافر الصناعيه ممنوعه
الشعر لازم يكون مربوط لورا
الخواتم الاكسسوارات ممنوعه عدا خاتم الزواج

Nails should be kept short

Avoid wearing rings with ridges or stones

Remove wrist watches and wrist jewelry.

If you are wearing long ^{لبسمر الاكمام} sleeves roll them up before hand washing and at all times in clinical areas. Tuck in ties/no tie or bow tie, tie hair back.

Nail brushes are not used for routine hand hygiene.

Hands must be wet before applying the recommended amount of soap and water and rinsed thoroughly before drying .

If hands are not rinsed or dried adequately there is a potential for skin damage to occur .

The use of gloves is not a substitute for hand hygiene .

Keep your hands healthy; cover any cuts with a water proof dressing.
حتى لو كنت لابس قفازات ، لدرم تغسل
وتحذر القفازات .

Gloved hands should not be washed or cleaned with alcohol hand-rubs .

Barrier Nursing: Look for barrier nursing signs; leave notes outside; wear apron, gloves and wash hands, speak to the nurse for advice.

سوات
لما تحصر نفسك ، خذ مشورة الممرض لكي يساعذك
يدرك

Steps before examine patient

- Introduce yourself
- Gain consent and co-operation
- Perform hand hygiene
- Roll up sleeves, remove watch
- Provide privacy

Vital sign

- **PULSES (cardiac rate)**
- **RESPIRATORY RATE**
- **TEMPERATURE**

PULSES (cardiac rate)

Radial pulse

• بالنسبة لتفصيل اماكن *pulse*
بالسلايدات التالية الدكتور
ما ذكرهم

• الصمهم هون انك تعرف اسم *pulse* ومكانه

- *Palpate the radial pulse with the pads of your fingers on the flexor surface of the wrist laterally.*
- Partially flexing the patient's wrist may help you feel this pulse.
- Compare the pulses in both arms



Brachial pulse

Flex the patient's elbow slightly, and with the thumb of your opposite hand palpate the artery just medial to the biceps tendon at the antecubital crease.

The brachial artery can also be felt higher in the arm in the groove between the biceps and triceps muscles.



Carotid Artery

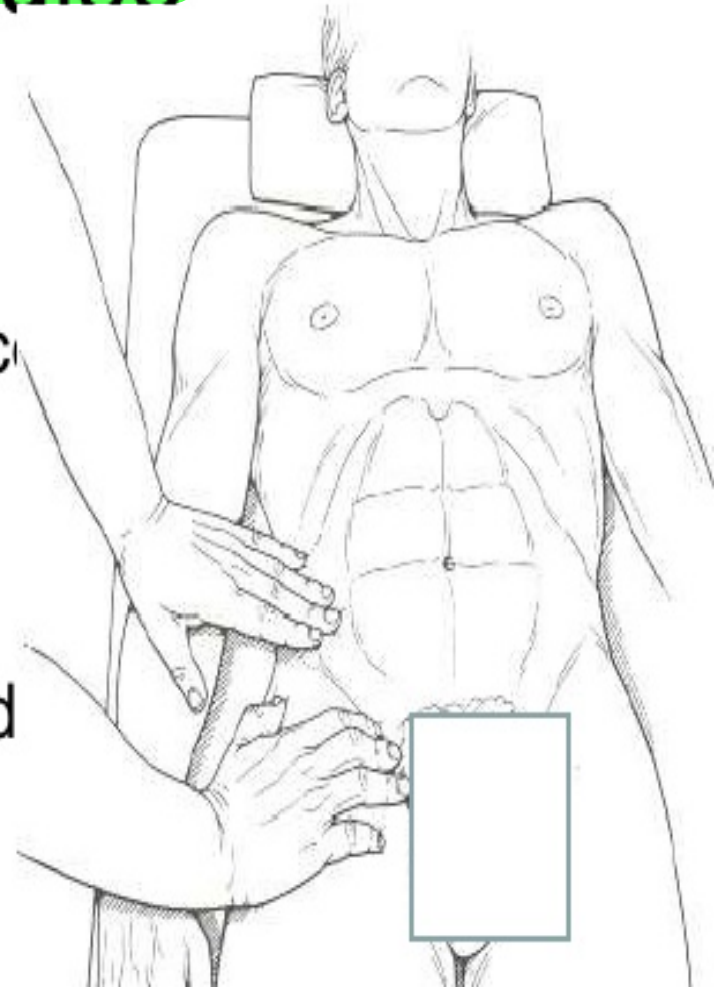
- At level of thyroid cartilage
- Lateral to trachea



Femoral pulse

The *common femoral artery* emerges into the upper thigh from beneath the inguinal ligament one-third of the distance from the pubis to the anterior superior iliac spine.

It is best palpated with the examiner standing on the ipsilateral side of the patient and the fingertips of the examining hand pressed firmly into the groin.



Popliteal Artery

- *The popliteal artery* passes vertically through the deep portion of the popliteal space just lateral to the midplane.
- It may be difficult or impossible to palpate in obese or very muscular individuals.
- Generally this pulse is felt most conveniently with the patient in the supine position and the examiner's hands encircling and supporting the knee from each side.
- The pulse is detected by pressing deeply into the popliteal space with the supporting fingertips. Since complete relaxation of the muscles is essential to this examination, the patient should be instructed to let the leg "go limp" and to allow the examiner to provide all the support needed.



The **posterior tibial pulse**.

- The *posterior tibial artery* lies just posterior to the medial malleolus.
- It can be felt most readily by curling the fingers of the examining hand anteriorly around the ankle, indenting the soft tissues in the space between the medial malleolus and the Achilles tendon, above the calcaneus.
- The thumb is applied to the opposite side of the ankle in a grasping fashion to provide stability.
- Again, obesity or edema may prevent successful detection of the pulse at the location.



The *dorsalis pedis* artery

- Is examined with the patient in the recumbent position and the ankle relaxed.
- The examiner stands at the foot of the examining table and places the fingertips transversely across the dorsum of the forefoot near the ankle.
- The artery usually lies near the center of the long axis of the foot, lateral to the extensor hallucis tendon but it may be aberrant in location and often requires some searching.
- This pulse is congenitally absent in approximately 10% of individuals.





حفظ

IMPORTANT SITE OF PULSES

Radial artery: lies at the base of the thumb proximal to the 'bracelet' of wrist skin creases
لم معصم اليد

Brachial artery: lies in the antecubital fossa medial to the biceps tendon.

Carotid artery: lies in the neck next to the thyroid cartilage

Femoral artery: felt in the groin below the inguinal ligament.

Popliteal artery: lies between the heads of the gastrocnemius → المنطقة خلف الركبة

Posterior tibial artery: felt right down behind the medial malleolus → الكعب الإنسي

Dorsalis pedis artery: felt between the heads of the first and second metatarsals.
مشط القدم

حالة مستقلة العنصر، هناك حالتين

Observe

regular → 15 second x 4

Irregular → 1 minute

rate (number of beats per minute)

• **<60:** bradycardia

* مهم من اسئلة السوات

• **>100:** tachycardia

rhythm (regular, irregular)

volume (force) of the pulse (weak, strong)

Record the pulse on to the observation chart and report any abnormal results to the doctor/nurse in charge

final step:

مرتة

Leave clinical area tidy and perform hand hygiene

Normal pulse rate: **60 – 100** beats per minute, regular rhythm

RESPIRATORY RATE

- Be aware that if a patient is aware that you are checking their respiratory rate, their breathing pattern may change. If possible, record respirations while the patient is unaware. Palpate radial artery as if taking the pulse to prevent patient knowing respiratory rate is being assessed.

• المهم انك ما تكفي للمريض انك رح تقيس سرعة ريسه ، لانه رح يعيرها

Respiration should be observed for **rate, depth and pattern of breathing**

←
نفس

Rate: the normal rate for an adult at rest is 12-20 breaths per minute

حسب الشهيق والزفير
بواحد

Depth: the depth of respiration is the volume of air moving in and out with each respiration. The normal tidal volume for an adult is about 500ml and should be constant with each breath. A spirometer can be used to measure the precise amount

إذا كان عمق النفس مختلف بكرة دليل على مشكلة صحية

Pattern: changes in the pattern of respiration are often found in disorders of the respiratory control centre. Some causes for a change in pattern are anxiety, ketoacidosis, extreme exertion, fear, fever and midbrain lesions

Normal respiratory rate: **12 – 20** breath per minute:

- **<12: Brady apnea**
- **>20: Tachypnea**

Count for one minute



TEMPERATURE

The normal body temperature of a person varies depending on gender, recent activity, food and fluid consumption, time of day, and, in women, the stage of the menstrual cycle. Normal body temperature can range from 36.5 degrees to 37.2 degrees C for a healthy adult.

- < 36.5 : Hypothermia
- > 37.2 : Hyperthermia



A person's body temperature can be taken in any of the following ways:

Orally. Temperature can be **taken by mouth** using either the classic **glass thermometer**, or the more modern **digital thermometers** that use an electronic probe to measure body temperature. • سنته انه المريض ما أكل شئ ساحب

Rectally. Temperatures **taken rectally** (using a **glass or digital thermometer**) tend to be **0.5 to 0.7 degrees F** higher than when taken by mouth. • درجة الحرارة =
السيحة - (07* 05)
fahrenheit

Axillary. Temperatures can be **taken under the arm** using a **glass or digital thermometer**. Temperatures taken by this route tend to be **0.3 to 0.4 degrees F** lower than those temperatures taken by mouth. • درجة الحرارة =
السيحة + (04* 03)

By ear. A **special thermometer** can quickly measure the temperature of the ear drum, which reflects the **body's core temperature** (the temperature of the internal organs). لم درجة حرارة الاعضاء الداخلية

By skin. A **special thermometer** can quickly measure the temperature of **the skin on the forehead**.

BLOOD PRESSURE



مهروري تحصروا الميديو،
مستان تثبتوا الحطوات

Equipment



sphygmomanometer



stethoscope

- **وضعية المريض:** يقعد على المقعد والظهر مستقيم والقدمين غير متقاطعين (uncross)
- واليد يجب ان تكون على مستوى القلب ومكشوفه من الملابس الى الكتف
(patient's arm should be expected to the shoulder)

* الخطوات الاساسية للاساسية لـ physical examina

Introduce self, gain consent and co-operation

Perform hand hygiene, roll up sleeves, remove watch

هذا السؤال ضروري
تسأله للمريض

Ask patient if they have had any tea, coffee, been smoking or exercised in the last half an hour

Assess which **arm would be the most suitable** (i.e. presence of dialysis fistula, PICC line, residual arm paraesthesia or oedema)

• اهتم
اليد المناسبة

عسيل
الكلبي

1 Choose correct sized cuff and place it on correctly ensuring the cuff is placed **2-3 cm** above the antecubital fossa

الخطوات

كم سموات



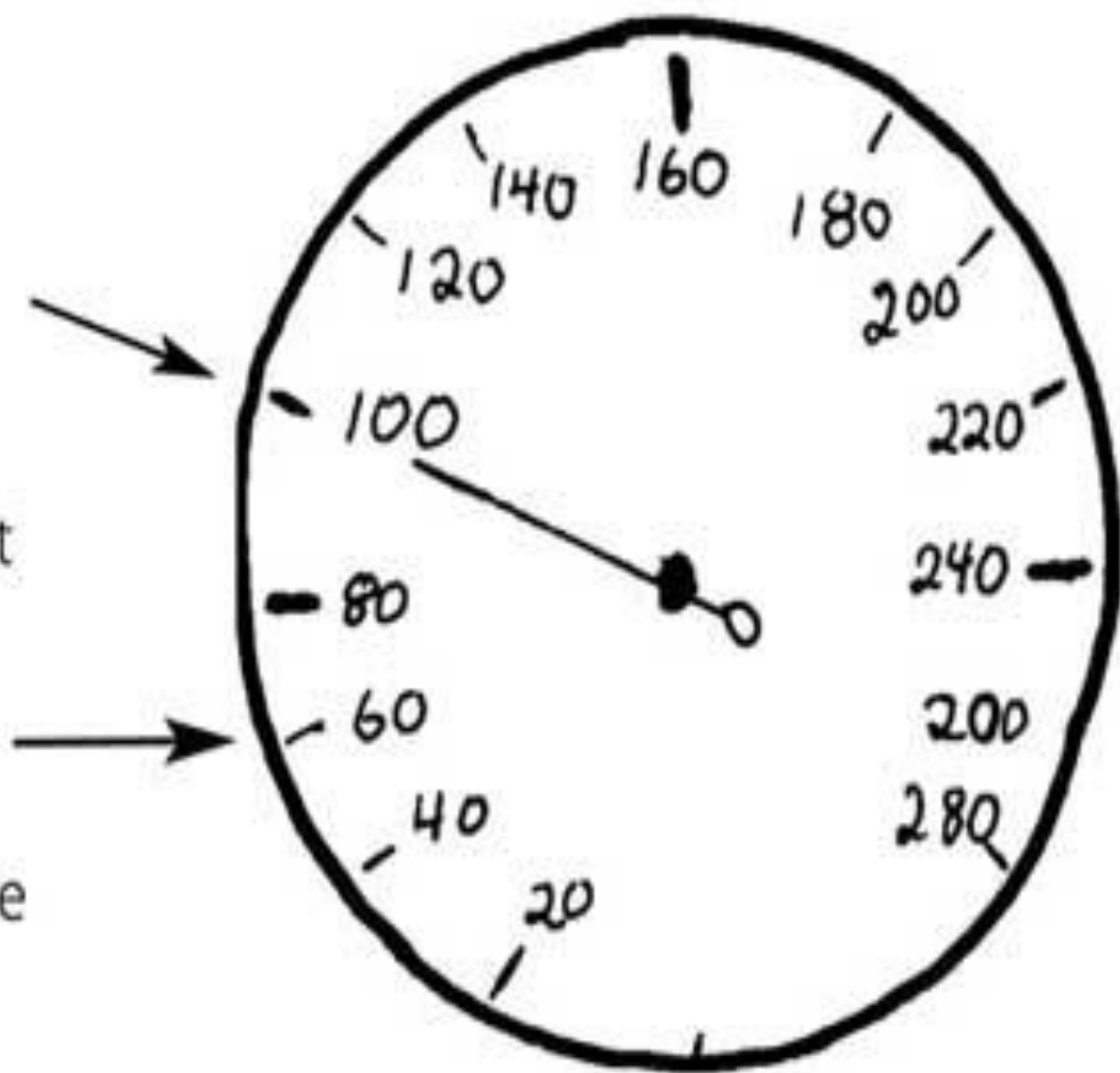
- 2 Correct position of arm (antecubital fossa in line with heart, arm slightly flexed and well supported on table or pillow)
 - 3 Inflate cuff and note when pulse can no longer be felt then release cuff
 - 4 Place stethoscope over the brachial artery on the medial aspect of the antecubital fossa using diaphragm side
 - 5 Inflate cuff to 20-30 mmHg above level noted previously and
 - 6 drop the dial/pressure gauge slowly no faster than 2-3mmHg per second
 - 7 Listen and record correctly **Korotkoff sounds**. The appearance of audible sounds is called the 1st Korotkoff sound and the pressure at which it appears on the sphygmomanometer is called the systolic pressure
- Listen then for the disappearance of sounds. This is the 5th Korotkoff sound. The pressure at which they disappear on the sphygmomanometer is the diastolic pressure

فترع

If you start to hear a pulse here,

and then cannot hear it anymore when the needle is here,

then the blood pressure is: 100/60.



8 Record blood pressure as the systolic value over the diastolic value to the nearest 2mmHg

Record the blood pressure

9 Leave clinical area tidy and perform hand hygiene

Normal blood pressure:

Depends upon age and gender of patient

- **>140/90 mmHg: Hypertension**
- **< 90/60 mmHg: Hypotension**

← سوات

The pressure of blood
in the vessels when
the heart beats:

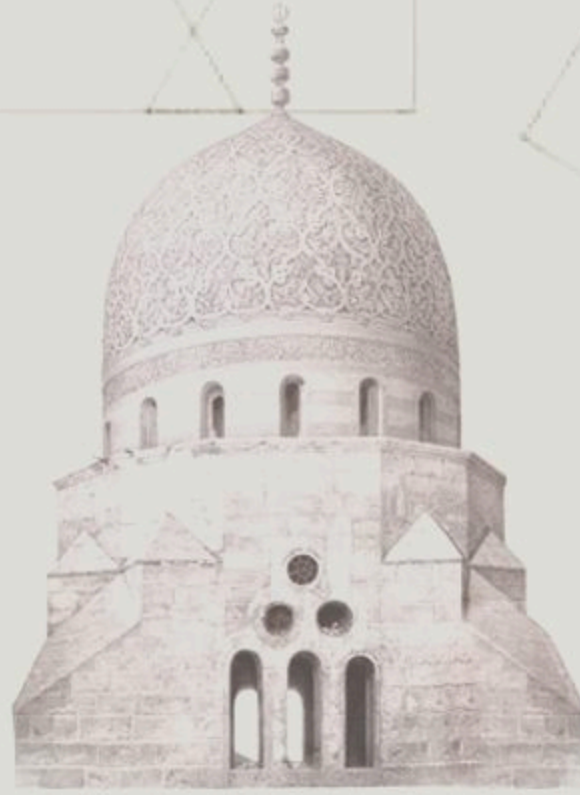
systolic pressure

The pressure
between beats when
the heart relaxes:

diastolic pressure

less than
120/80 mmHg

millimeters of mercury



قال رسول الله ﷺ :

"مَنْ أَكْثَرَ مِنَ الْاسْتِغْفَارِ جَعَلَ اللَّهُ لَهُ مِنْ كُلِّ هَمٍّ فَرَجًا وَمِنْ
كُلِّ ضَيْقٍ مَخْرَجًا وَرَزَقَهُ مِنْ حَيْثُ لَا يَحْتَسِبُ".

رواه أبو داود .



لا تنسوا اهلنا بغزة من دعائكم