

in the Emergency Department there is a need to what ?

in the Emergency Department there is a need to deliver antibiotics for acute infections and sepsis.

and we need to deliver fluids for patients who are dehydrated and medications to treat cardiac problems and arrhythmias.

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in the Emergency Department there is a need to deliver antibiotics for acute infections and sepsis

AND

we need to deliver fluids for patients who are dehydrated and medications to treat cardiac problems and arrhythmias

ALSO

What is the safest and easiest way to give patients antibiotics for acute infections and sepsis and fluids for patients who are dehydrated and medications to treat cardiac problems and arrhythmias ????

Peripheral intravenous access

where is the majority of IV lines are placed ?

a majority of IV Lines are placed in the superficially located veins of the upper extremities extending from the upper arm to the hand

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IV Lines may also be placed in the lower extremities

IV Lines are placed in the superficially located veins of the upper extremities extending from the upper arm to the hand only

you should be careful about people during peripheral intravenous access

people with a history of diabetes and or poor peripheral circulation

الناس اللّي ضعيفة في الانجليزي زبى
should be careful about = caution is advised

احنا هنعمل ايه انها ردة ؟

we will learn preparation needed for the IV placement procedure

بعد كدة هنعمل ايه ؟

steps for catheter insertion

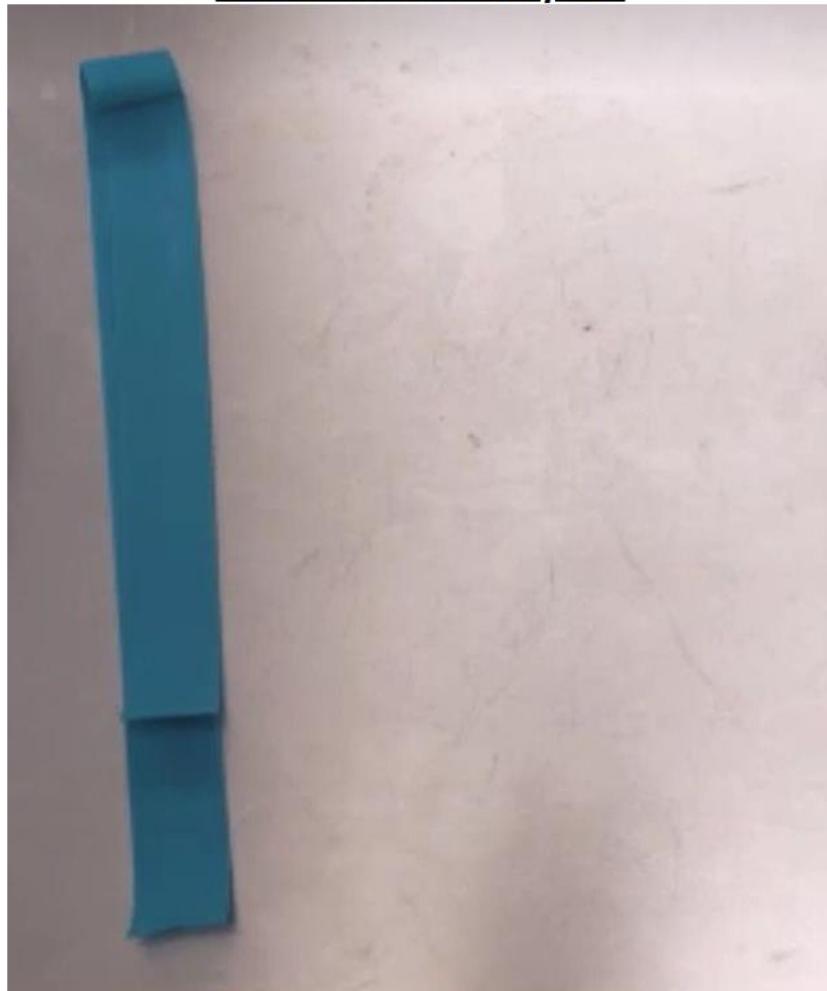
بس كدة ؟
لـ

learn how to effectively flush the iv line

First : obtain the necessary supplies for the procedure which include
1 non sterile gloves



2 a rubber rounquet



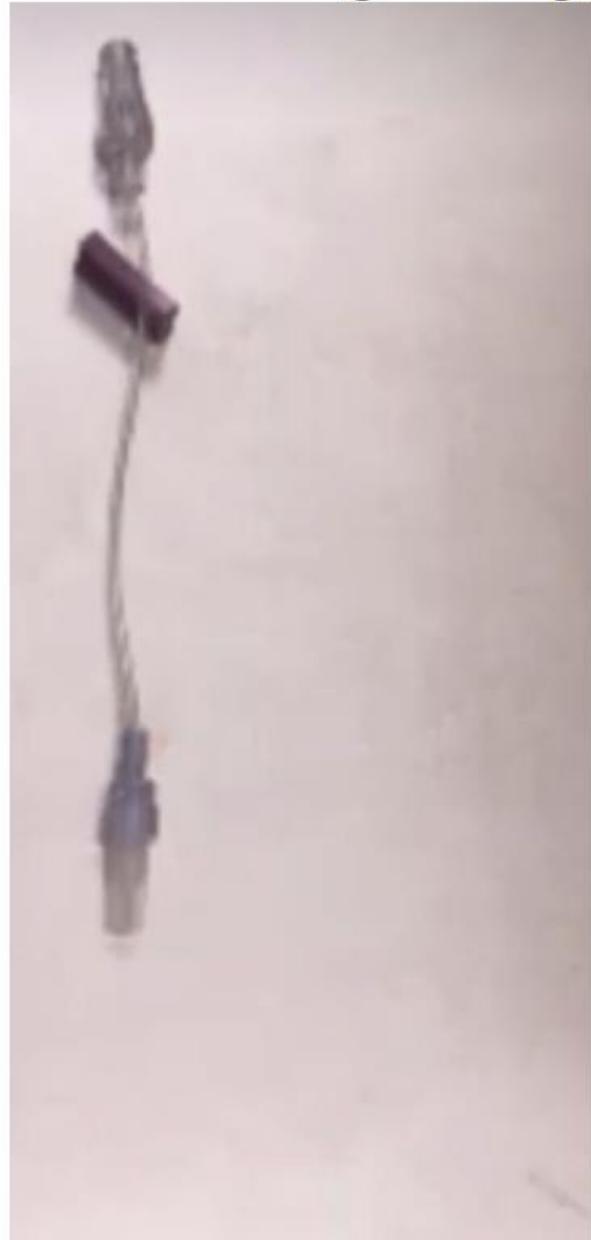
3 chlorhexidine or alchol swabs



4 combined catheter and needle mechanism



5 IV Set of tubing and bags



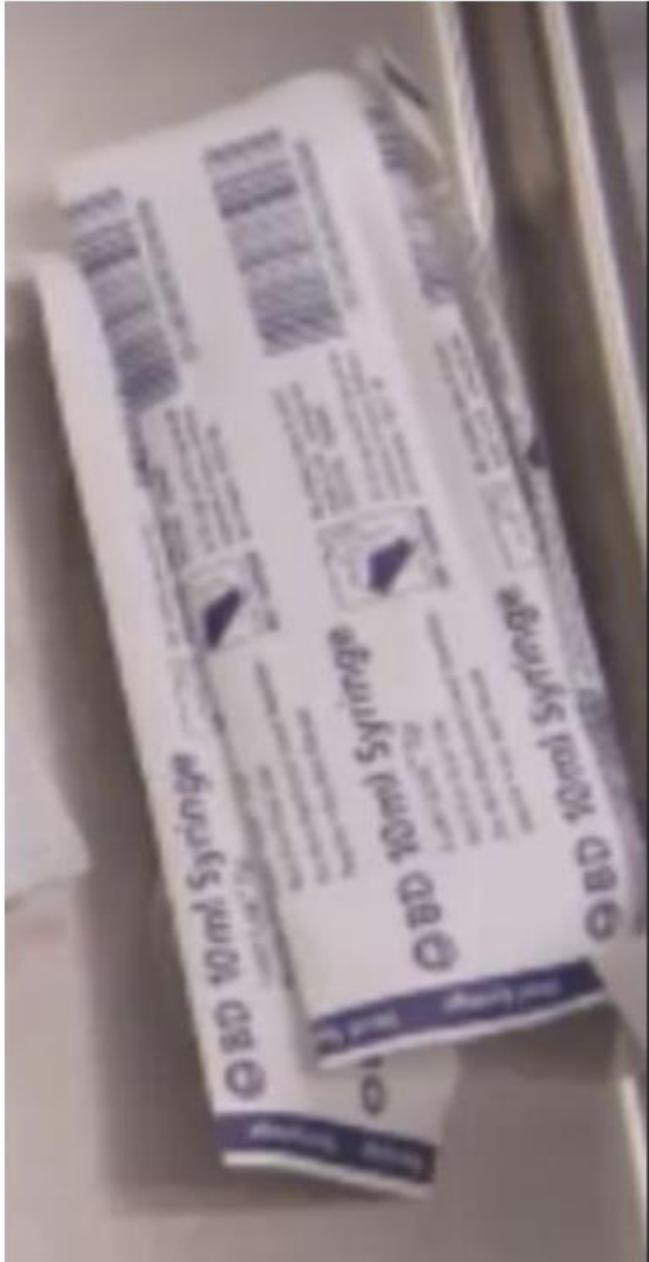
6 adhesive tape



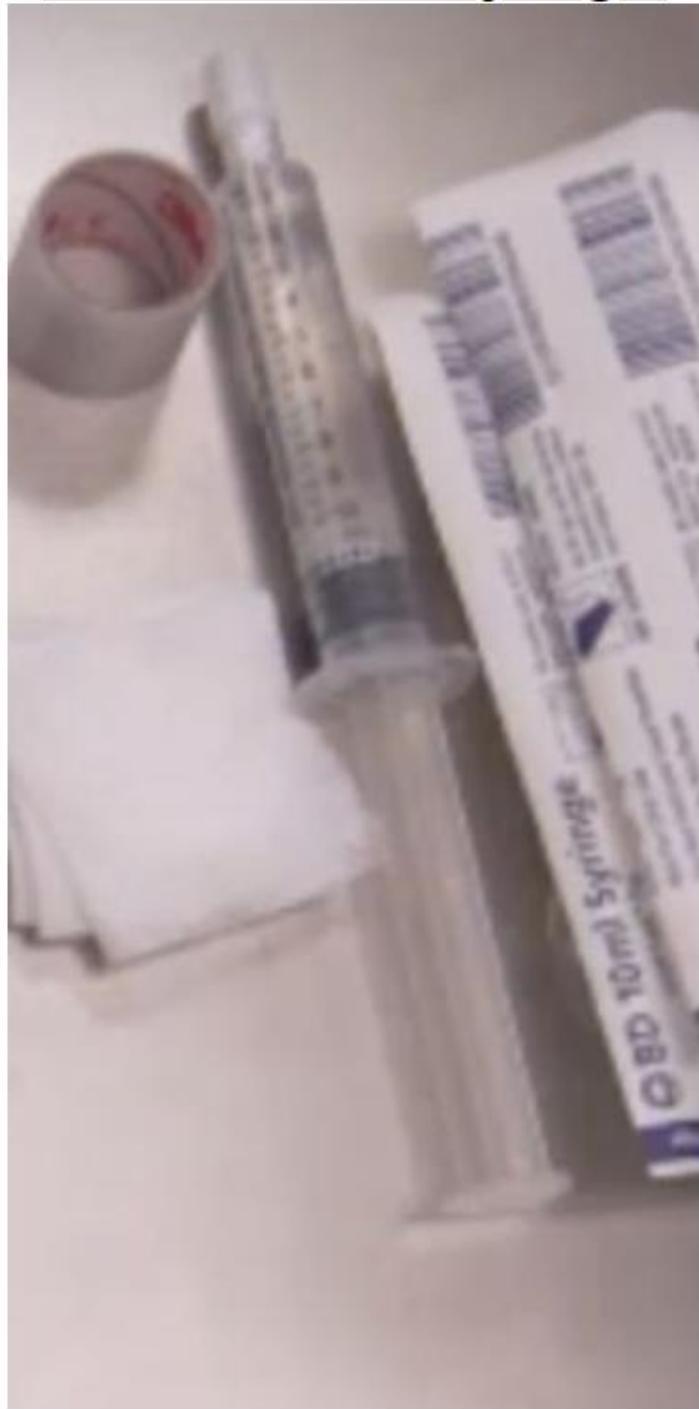
7 two by two or four by four inch gauze



8 normal saline



9 five milliliter syringe

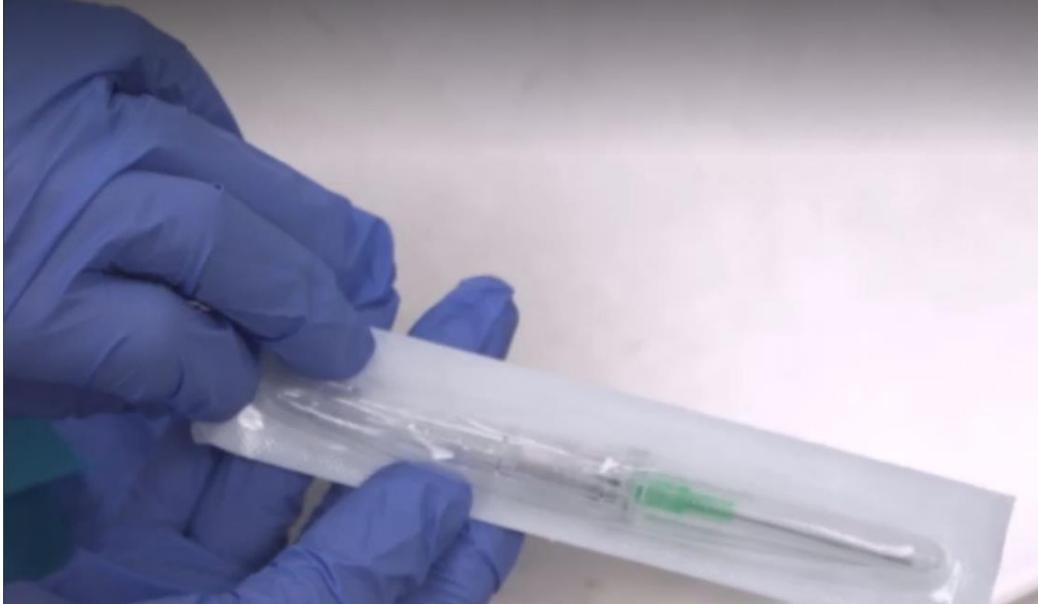


10 ten milliliter syringes for blood samples



second step of preparations

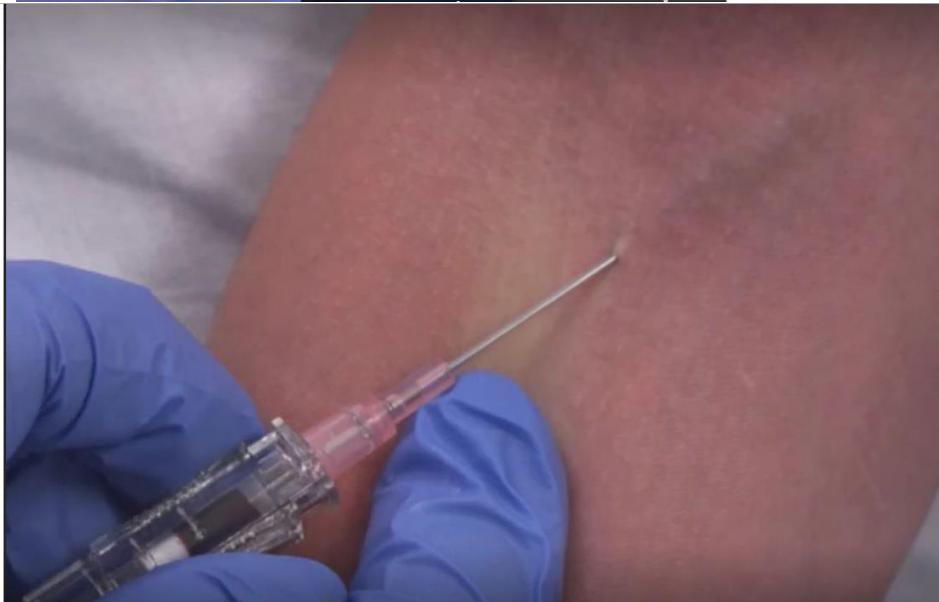
familiarize yourself (تعرف على) with combined catheter and needle mechanism
بتعقلي مغلفة زي منت شايف



catheters are packaged (مغلفة) prethreaded (مركبة مسبقا) over needles



و فيه كتير منها بتسحب الايرة لجو اول لما تفتحها عشان تمنع ان الشخص اللي فتحها يتعور

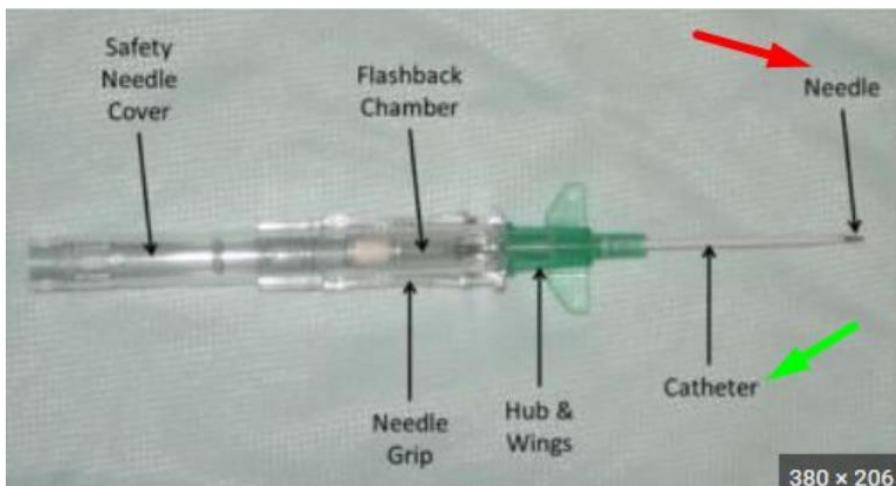


بنحط القسطرة و الايرة الاتنين مع بعض

When placing the IV
catheter and needle inserted together



نفع القسطرة و نسحب الابرة



بنسحب السهم الاحمر لجوا و بنطلع السهم الاخضر لبرا

يعتمد اختيار القسطرة

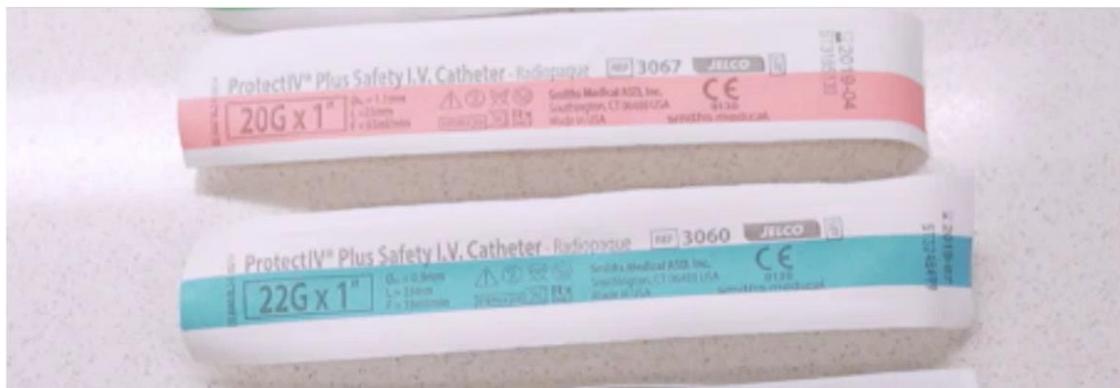
يعتمد اختيار القسطرة على المريض
و السبب اللي احنا بنعمل أي في ثيرابي بسببه أصلا

1. patient
2. the reason for IV Therapy

catheter size ranges from to

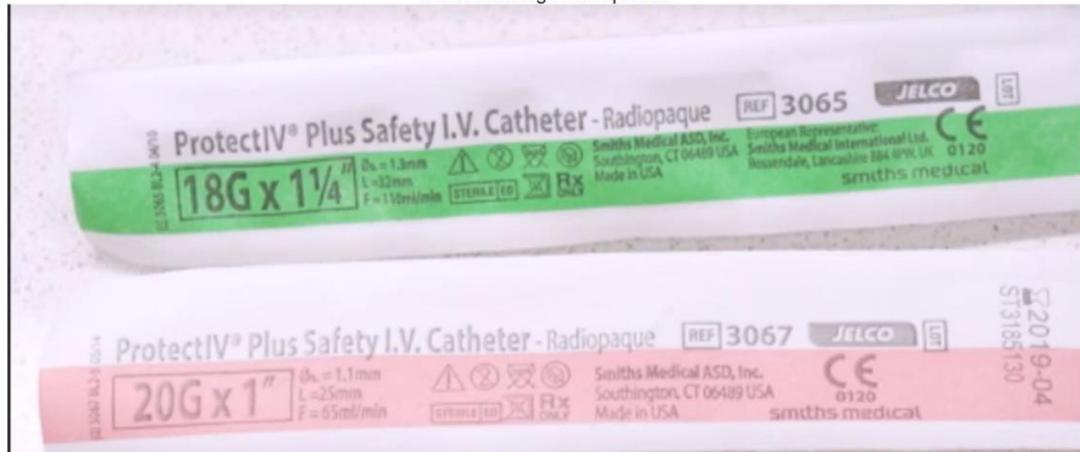
14 gauge to 24 gauge

gauge = قياس



we select catheter from 18 to 20 gauge for who ?

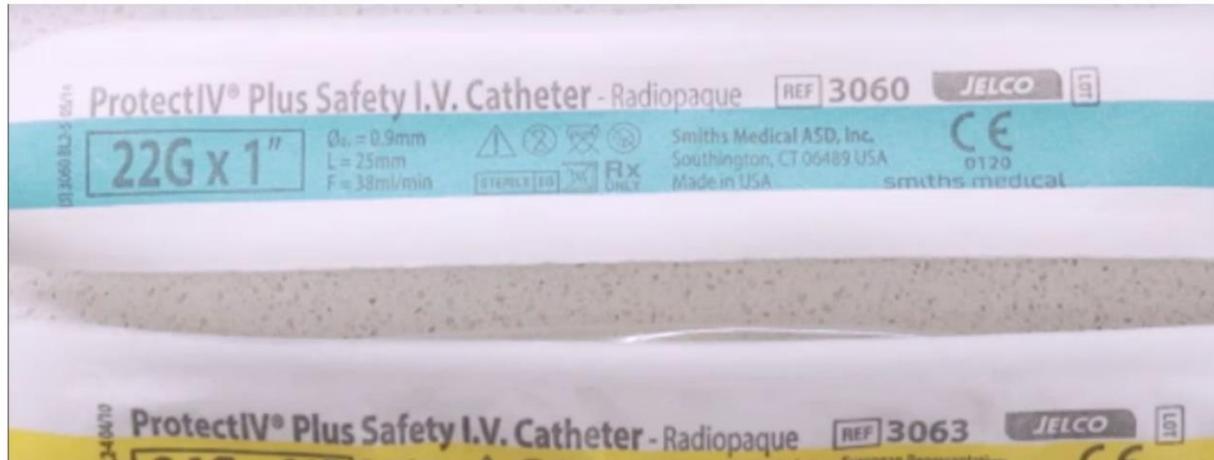
for the average adult patient



we select catheter from 22 to 24 gauge for who ?

pediatric patients
المرضى الاطفال

or adult with small veins.....



you may select catheter range from 14 to 16 gauage to who ?

the patient that requires large amounts of fluid or blood



which gauage of catheter you should have in you clinic ?
أي مقاس من القسطرة يجب عليك امتلاكه في عيادتك ؟

you must have a few different size catheters available

why you must have a few different size catheters available ?

as patient vein size is difficult to predict

second step ?

wash your hands thoroughly (جيداً).
wear a pair of non sterile gloves (جوانتي غير معقم).
then discuss the procedure with the patient

after discussion of procedure with the patient what we will do ?

when the patient is comfortable
position them with the arm extended and straight



then place a tourniquet on the upper portion of the arm



and tie it tightly by crossing the ends over each other and tucking in one of the ends rather than making a knot.

يعني هندخل واحدة طرف تحت الطرف الثاني مش هنعمل عقدة
و انتها في نهاية احدى الطرفين بحيث تبقى مربوطة بس من غير عقدة

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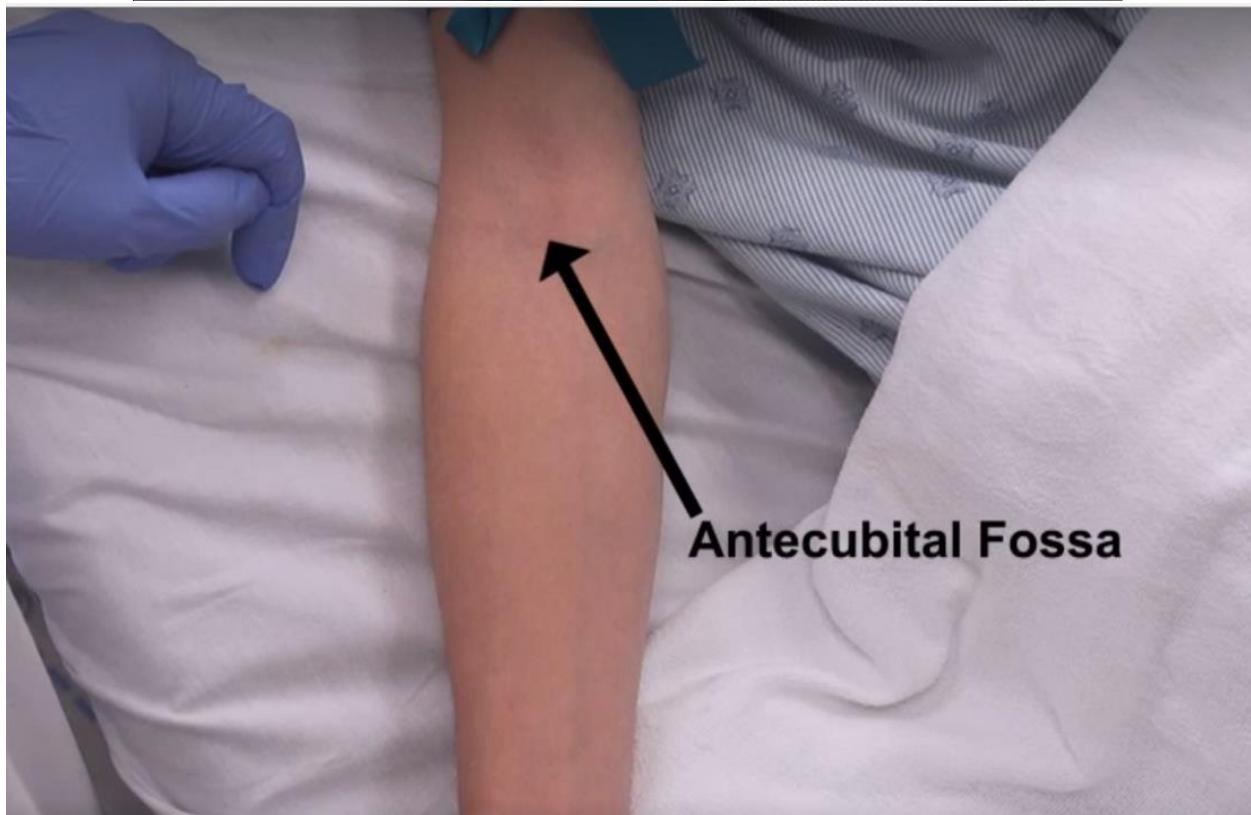


this method will ensure that the tourniquet can be easily removed after the vein has been accessed .

the step after tourniquet step ?

choose an insertion site which may be the most challenging portion of the procedure

start the palpation in the antecubital fossa where veins are largest





then work your way down the arm
يعني تابع لأسفل بعد كدة على مدار الذراع

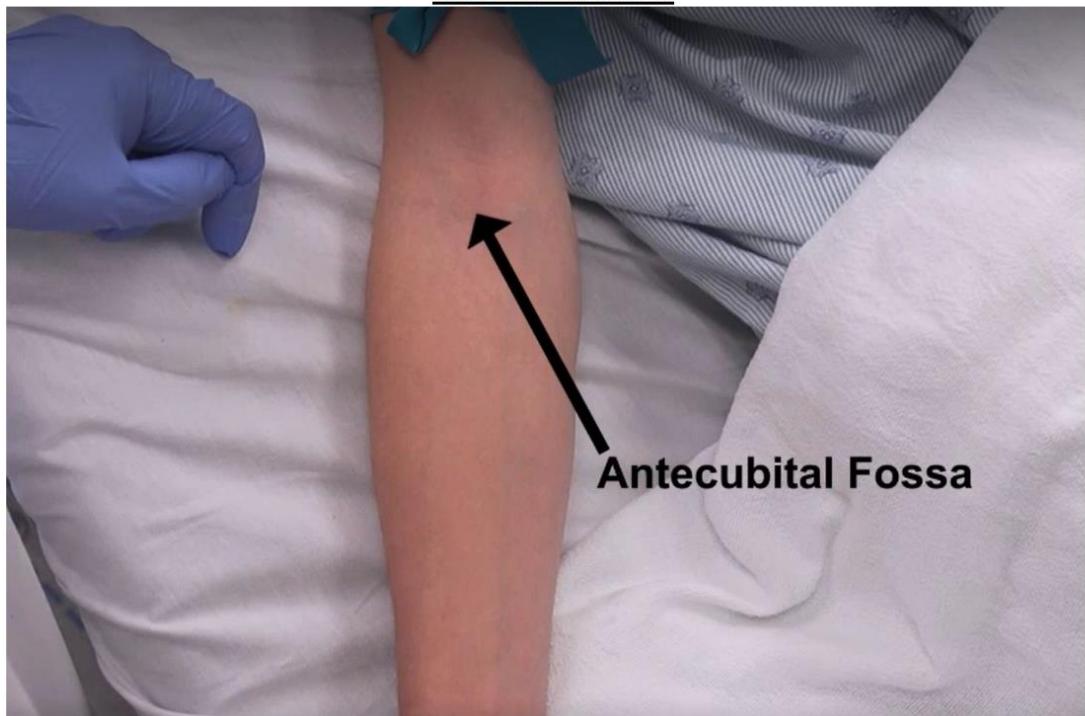
which may be the most challenging portion of the procedure ???

choosing an insertion site

veins are largest in ??

antecubital fossa

antecubital fossa



step after palpation of antecubital fossa then work the down the arm ??

feel for a vein by palpating for a squishy or spring area on the patient arm

squishy = لينة
spring = النابضة



then look for a vein by inspection of the patient skin



veins appear blue or grey

if no vessel identified in the antecubital fossa
work your way more distally to look for a vein



you may need to reapply the tourniquet on the forearm





for replacement of an IV in the hand

veins appear on the skin in what color ?

blue or grey

if no vessel identified in the antecubital fossa then ?

work your way more distally to look for a vein



why you may need to reapply the tourniquet on the forearm ?

for replacement of an IV in the hand



what is the best vessel for catheter placement ?

since all patients have different anatomies and varying medical histories the best vessel for catheter placement will be different

once the vein is selected ?

use chlorhexidine skin prep or alcohol swab to thoroughly () clean a broad area around the vein ... this is to reduce the rate of infection



why we use chlorhexidine skin prep or alcohol swab to thoroughly () clean a broad area around the vein ...

this is to reduce the rate of infection

what after we use chlorhexidine skin prep or alcohol swab to thoroughly (✨) clean a broad area around the vein ...

allow the skin to dry completely



when we will need to work the way more distally toward to the hand to look for a vessel for IV ?

if no vessel identified in the antecubital fossa

now let's review the catheter placement procedure (catheter insertion).

use your nondominant hand

(اللي هي اليد الغير سائدة اللي هي الشمال عند معظمنا)

هعمل اي بيه ايدها الشمال بقى ؟

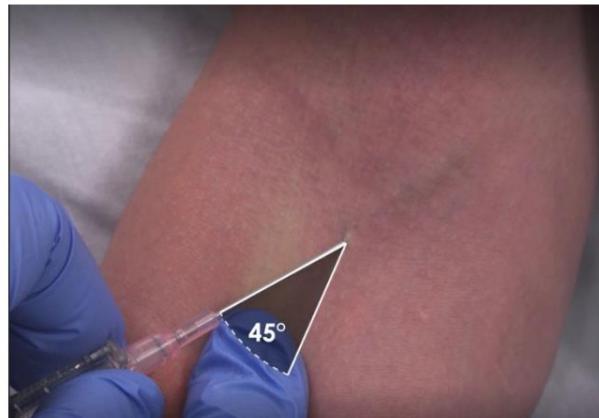
هتشد جلد المريض

pull the patient skin taut from the inferior distal of the insertion site.
to prevent the vein from rolling or moving during the procedure



next , remove the canula cover and insert the needle at a 45 degree angle to the skin with the bevel facing up.

A bevel is the angled surface formed on the tube when sharpened to make a needle point



insert it slowly to prevent penetrating the vessel
there will be some resistance when poking (،،) the needle through the patient's skin.



after the needle is inserted into the patient's skin observe the hub (محجر) of the needle for the flash of the patient's blood.



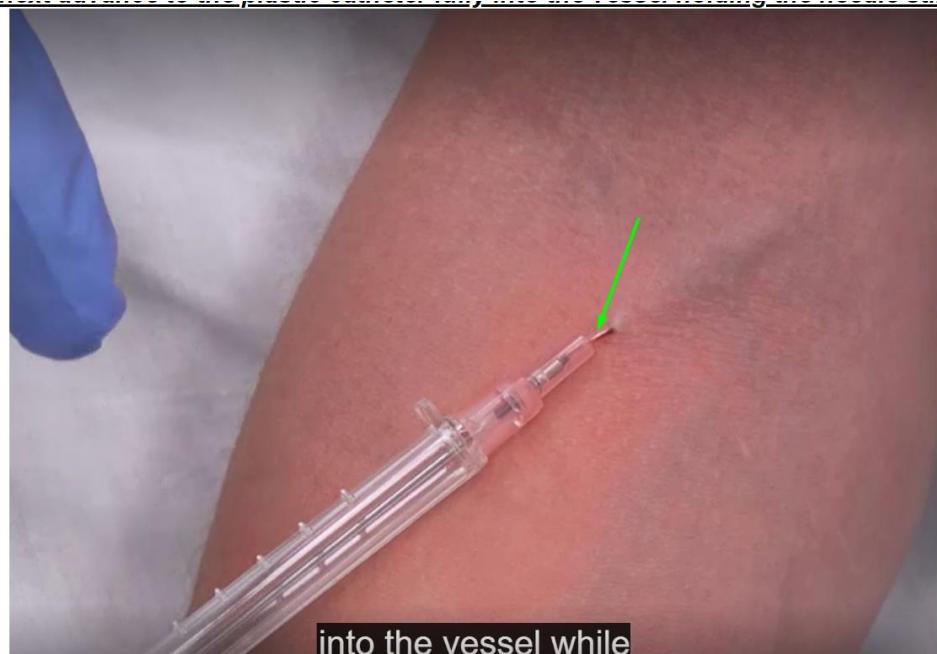
السهم الاخضر
السهم الاخضر
is the flash of blood

once the flash of the patient's blood is observed advance the needle a few more millimeters into the patient's vein

then slightly lower the needle catheter mechanism then begin to advance the catheter portion

reducing the angle of insertion is performed to prevent puncturing of the posterior wall of the vessel

next advance to the plastic catheter fully into the vessel holding the needle still



into the vessel while

كل القسطرة دخلت جوا الوعاء الدموي فهو



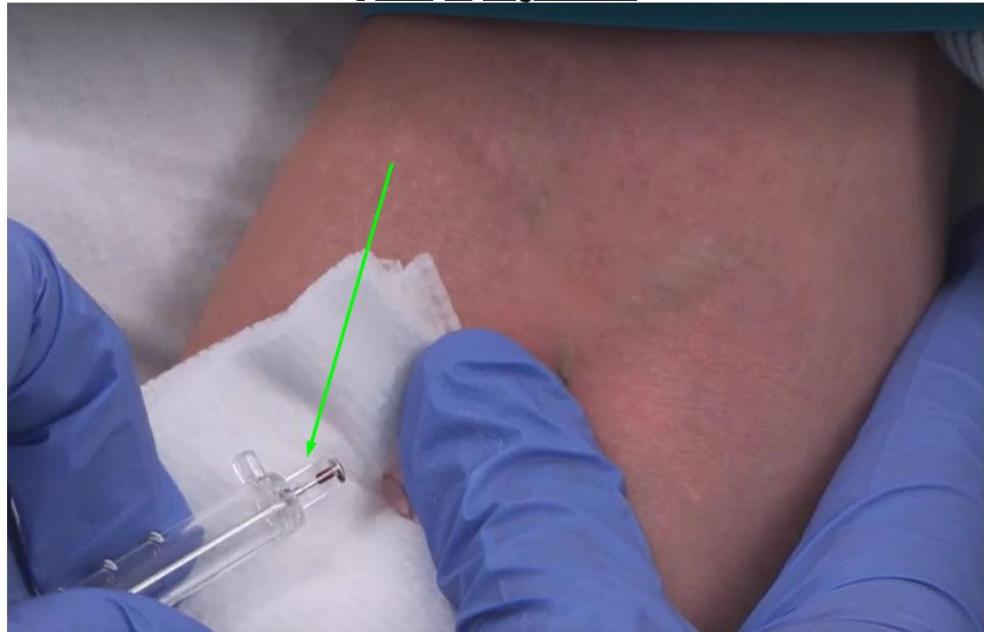
remove the
tourniquet from the patient
then place gauze (الشاش) (
محور) of the catheter
to prevent the blood spilling from the vein

apply gentle pressure on the proximal portion
of the catheter in the patient's vessel

يعني هندوس على القسطرة اللي احنا دخلنا معظمها جوا الوعاء الدموي دي علشان نثبتها



and
carefully remove the needle
بعد كدة هنخلع الايرة من القسطرة



كدة بقت القسطرة لوحدها

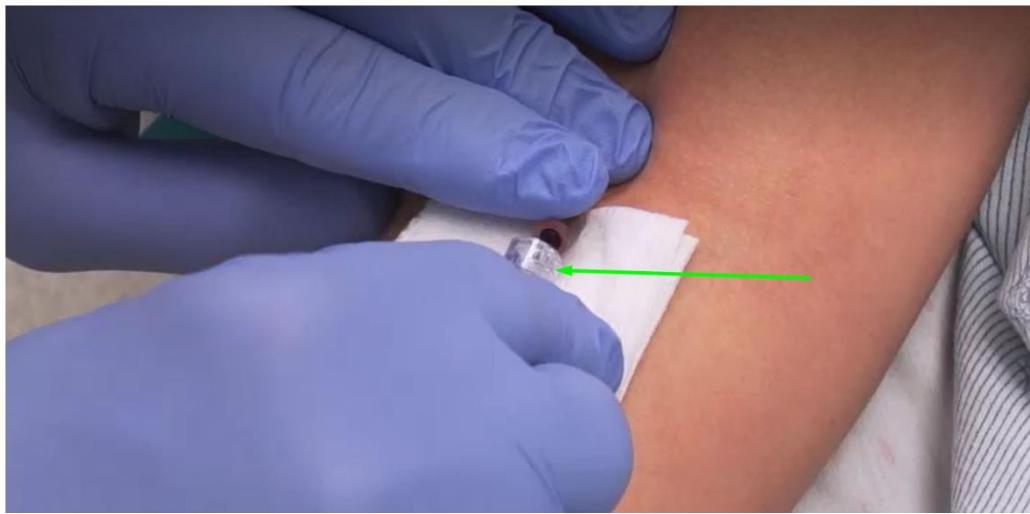


then we put the needle in the sharps container



طب تمام و بعدين؟
احنا حالياً مثبتين القسطرة جوا الوعاء الدموي و ضاغطين عليها بصباعنا و حاطين تحتها الشاش هنعمل ايه بعد كده؟

next, place the tubing hookup on the hub of the needle



السهم الأخضر
tubing hookup



كدة ركناهم ف بعض

tubing hookup with catheter

خذ بالك احنا كل ده ضاغطين على القسطرة بصباعنا
بعد لما نحط الهروك اب ده مع القسطرة وركناهم هتشيل الضغط بتاع صباعنا ده من على القسطرة

remove the pressure from proximal portion of the catheter

once the IV is secured
the line may be flushed

why we pull the patient skin taut from the inferior distal of the insertion site.

to prevent the vein from rolling or moving during the procedure

why we should insert the needle slowly

to prevent penetrating the vessel

why reducing the angle of insertion is performed ?

to prevent puncturing of the posterior wall of the vessel

why remove the tourniquet from the patient then place gauze (الشاش) under the hub (محuber) of the catheter?

to prevent the blood spilling from the vein

when we remove the pressure from proximal portion of the catheter ?

when we نركب tubing hookup with catheter

كل القسطرة دخلت جوا الوعاء الدموي what we do when

remove the
tourniquet from the patient
then place gauze (شاش).
under the hub (محور) of the catheter
to prevent the blood spilling from the vein

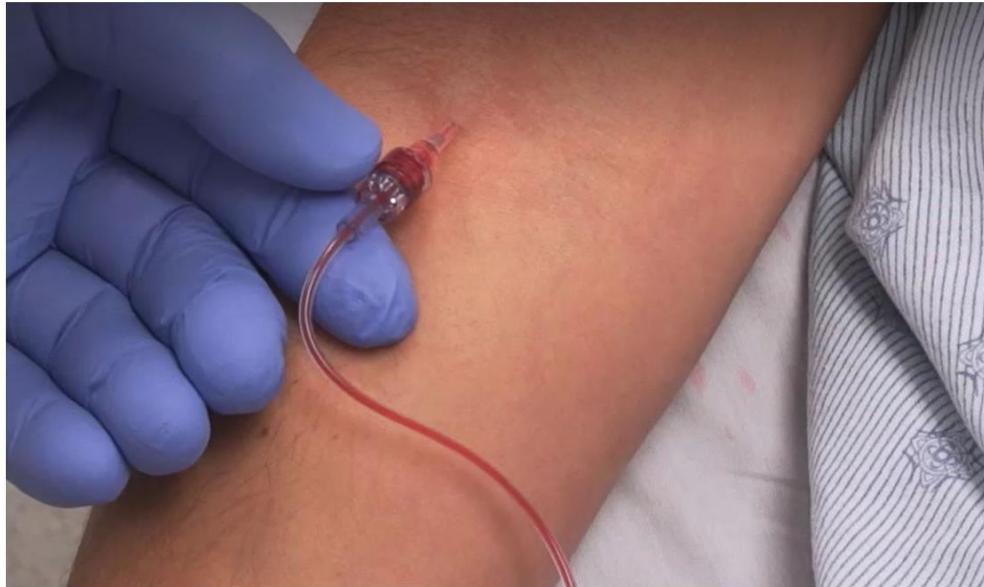
apply gentle pressure on the proximal portion
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يعني هندوس على القسطرة اللي احنا دخلنا معظمها جوا الوعاء الدموي دي علشان تثبتها

once the IV is secured

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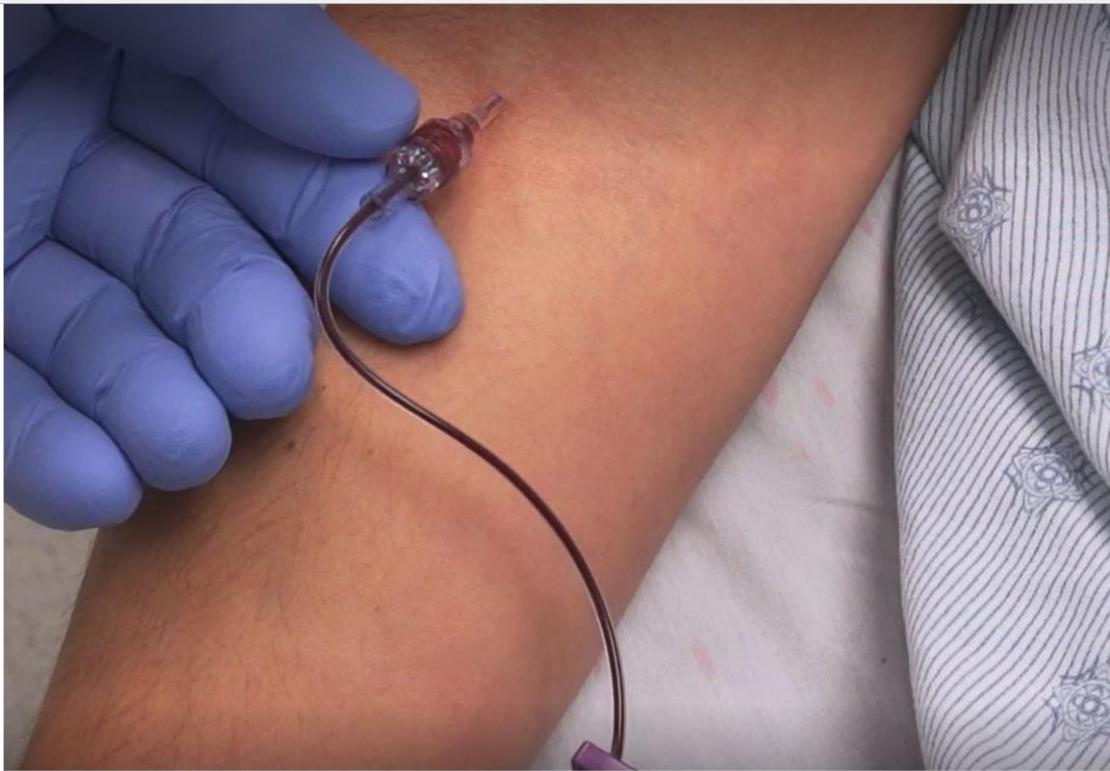
first attach the saline flush syringe
to the end of the tubing
next draw blood back from the catheter by pulling on the plunger of the flush



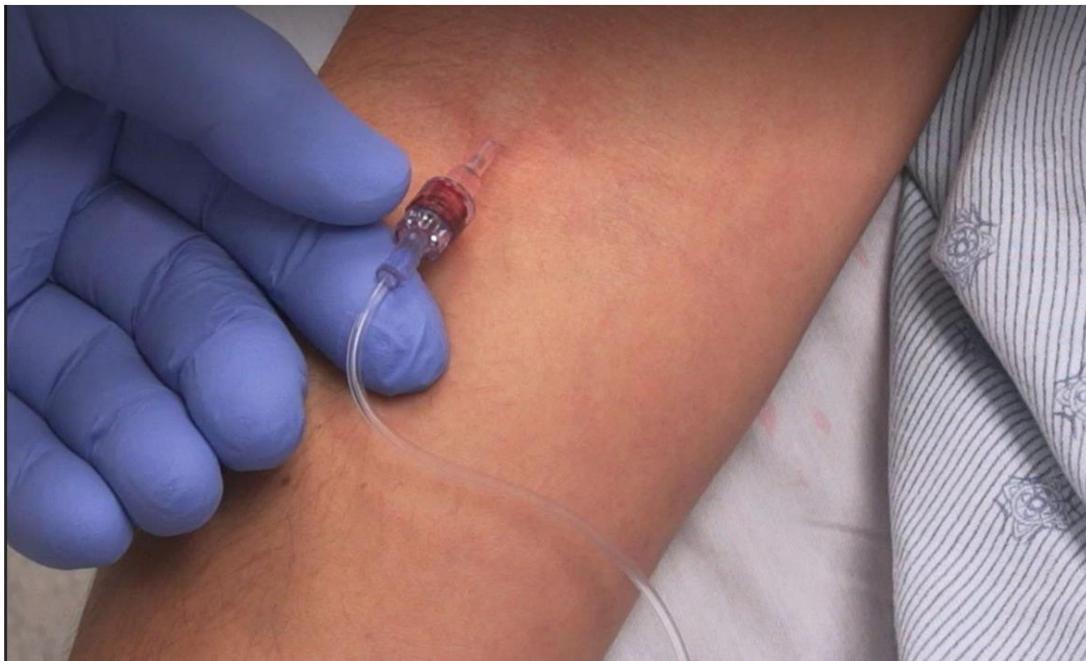
شاف الدم يرجع ازاي

fill the tubing hookup with blood

if the patient has no pain
and one is able to draw blood back from the catheter
the catheter is in the correct location



then flush the saline into the catheter



lastly palpate the insertion site for swelling and ask the patient if they had any pain associated with the flush

the catheter is in the correct location when

if the patient has no pain
and one is able to draw blood back from the catheter

last step in the IV Flush

lastly palpate the insertion site for swelling and ask the patient if they had any pain associated with the flush

last step ?

finally secure the peripheral IV Line to the patient skin with clear dressing and tape .





securing the IV line prevents it from becoming dislodged with patient movement



additional tape (السهم الاحمر) or an arm board may be necessary for diaphoretic or pediatric patient if the patient had pain or blood can't be drawn from catheter the catheter may not be in the correct location with in the lumen of the vein so the IV line should be examined and assessed

if deemed necessary (ان لزم الامر) remove the catheter and begin the process over again at a different insertion site

how to secure the peripheral IV Line ?

secure the peripheral IV Line to the patient skin with clear dressing and tape

why how to secure the peripheral IV Line ?

securing the IV line prevents it from becoming dislodged with patient movement

why additional tape (السهم الاحمر) or an arm board may be necessary?



additional tape (السهم الاحمر) or an arm board may be necessary for diaphoretic or pediatric patient

what if if the patient had pain or blood can't be drawn from catheter

**if the patient had pain or blood can't be drawn from catheter the catheter may not be in the correct location with in the lumen of the vein
so the IV line should be examined and assessed**

notes

effectively placing an IV in a patient
is imperative (اجراء الزامي لعلاج) to treat many common medical problems

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common learner errors includes
بعض الاخطاء اللي بيعملوها المتعلمين هي

not being prepared with all the supplies
prior (قبل) strating the procedure and poor vein selection .

anecdotally (حسب الاقوالي) being able to fell the vein is more important than visualising the vein
however many learners will try and place an IV Based on what they can see

this is truly a procedure that is perfected with practice and patience .
take advantage of opportunities to place IVs in as many patients as possible to master the basics

visualising the vein is more important than being able to fell the vein

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feel the vein is more important