Training session for CVC placement

A.N. Thomas Feb 2020

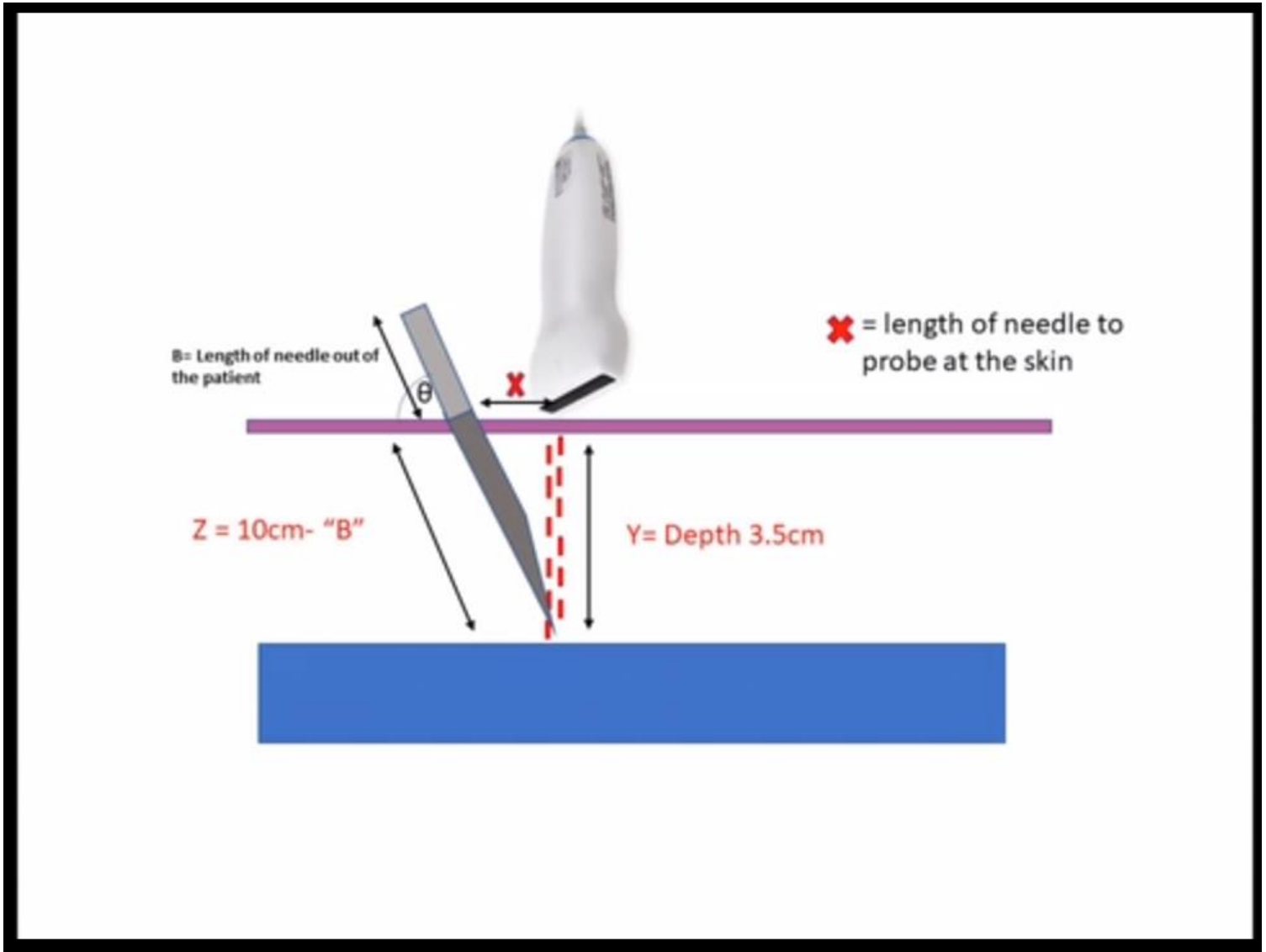
tony.thomas@srft.nhs.uk

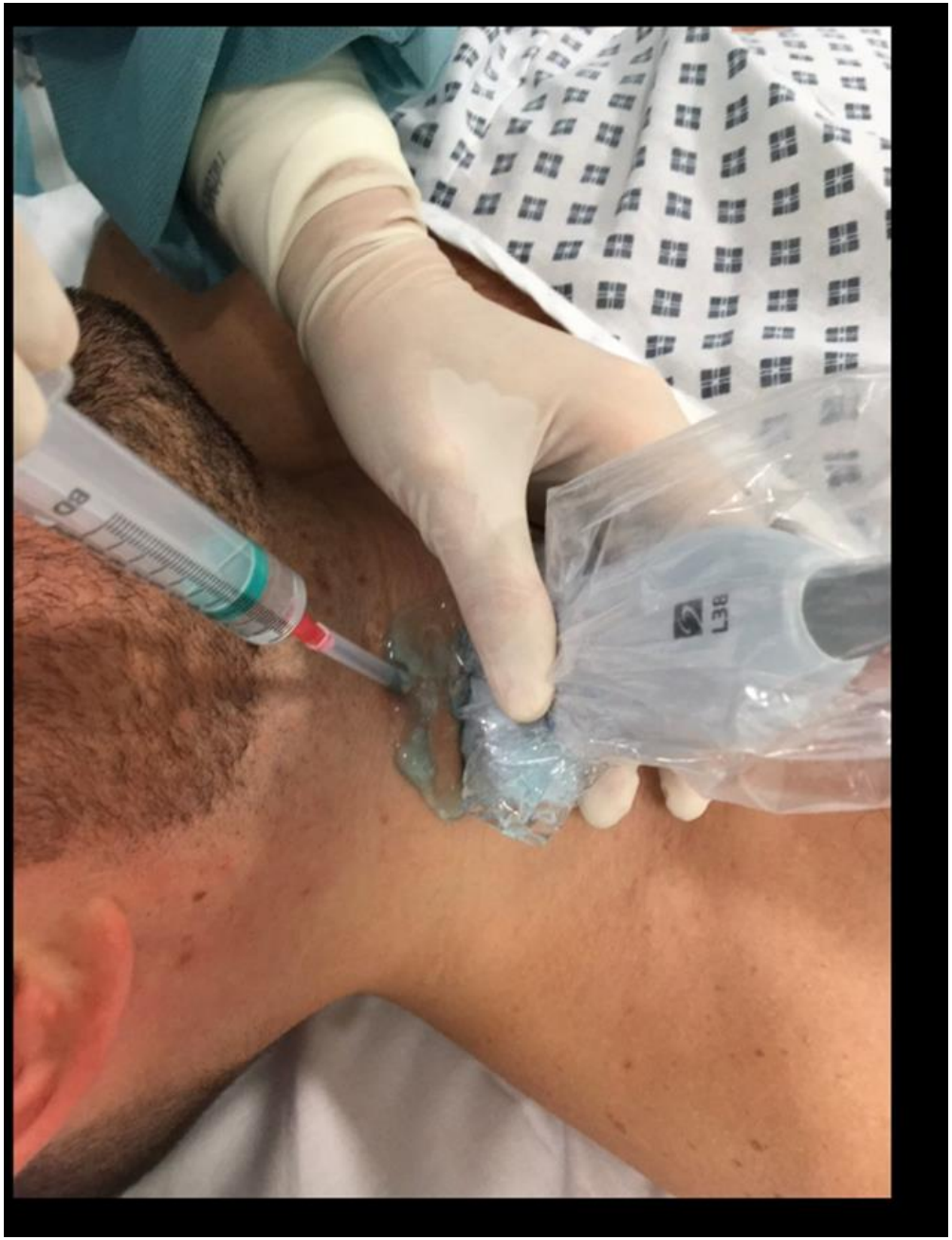
Introduction to placing lines in critical care

- Aim of the session is to provide practical experience prior to supervised practice in placing lines.
- The session supplements information that is available in on line tutorials.
- There is a brief introduction
- There are then four work stations to go around.

The talk

- Aims-
- Introductions and set aims of session
- how to access the on line training
- Problems with placement and why we use the LocSSIPs checks and how this is recorded in the structured document
- https://salfordcriticalcare.org/cvc-locssip-and-qrg-for-pcis/
- Have some copies of the LocSSIP from and show where they are on the website.
- What to look for in the CXR and potential problems with arterial placement
- Highlight how to development skills prior to actual placement - using ultrasound machine in patient examination to gain simple skills, scrubbing up when lines are being put in to practice holding the probe and the components of the line sets.
- Allow questions and don't be all negative!
- https://salfordcriticalcare.org/videos-of-practical-procedures/


B= Length of needle out of the patient
θ
= length of needle to probe at the skin
Z = 10cm- "B"
Y= Depth 3.5cm


L38

200 g.

TEN-HIGH Natural Latex Rubber Tubing, flexible rubber hose, Slingshot Catapult Surgical Tube Elastic Parts 5 Meter/10 Meter/20 Meter/21 Meter/25 Meter/35 Meter/45 Meter/50 Meter.

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Pay ~~£22.99~~ £16.99: Get £6 extra with your first Top Up. *Minimum spend £80. Click here to claim offer.

Note: This item is eligible for **click and collect.** Details

Size:

5M

Colour: **12x17mm**

12x17 mm | 3x5 mm | 4x6 mm | 5x10 mm | 5x7 mm | 6x9 mm | 8x12 mm

- Length: 5m; Outer diameter: 17mm/0.67"; Inner diameter: 12mm/0.47", Wall Thickness 0.1", Diameter Tolerance: +/- 0.01".
- Natural latex rubber band tube, good elasticity and durability.
- Extensive Use -- It was variously used as great accessory for Laboratory, Institute, replacement tubing for your swim paddles, spear gun, fishing gear, etc.

Beef Gelatine Powder 500 g.

£5 off your first Treasure Truck order

by Cake S.O.S.

8 ratings

Currently unavailable.

We don't know when or if this item will be back in stock.

- Beef Gelatin is a natural thickener, stabilizer and texturizer that mixes in
  Gelatin is commonly used in jams, jellies, gelatin desserts, marshmallow
  often used to create volume without adding a lot of calories. May also b
  desserts by adding to very hot water and then adding sweetener, fruit a
  Ingredients: Pure Beef Gelatin.

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by Metamucil

Amazon's Choice

RRP: ~~£29.99~~

Price: £25.47

You Save: £4.52 (15

Pay ~~£25.47~~ £19.47: (

Note: This item is eli

New (9) from £25.47

- Metamucil Smoot
- One serving of M
- An easy way to in
- Effective in treati
- Diets low in satur

Specifications for th

Globa

Recipe for phantom

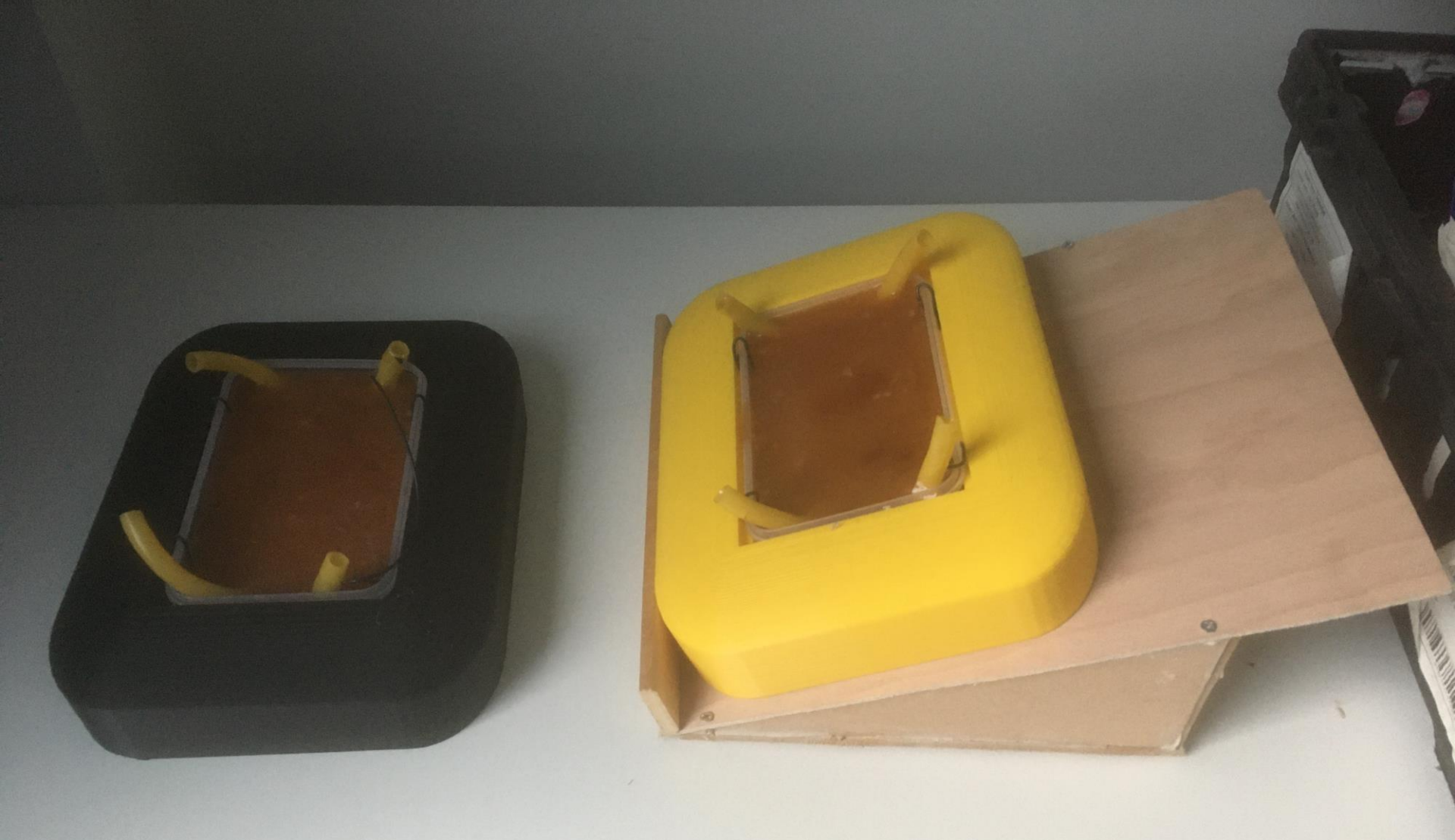
- 80gm Gelatine and 2 table spoons Metamucil per each litre of water
- Food dye as required
- From multiple YouTube videos- well worth watching and also have examples of using Tofu and Chicken
- https://www.youtube.com/watch?v=IV69zr1Jxqk
- https://www.youtube.com/watch?v=I-Wqu6Tp8U4

Other things that could be purchased locally

- Packet of chicken breasts/ tufu/ long ballons
- Food colouring
- Some Tupperware containers- I used 1.2 litres from Matalan
- Some garden wire or cut up coat hangers

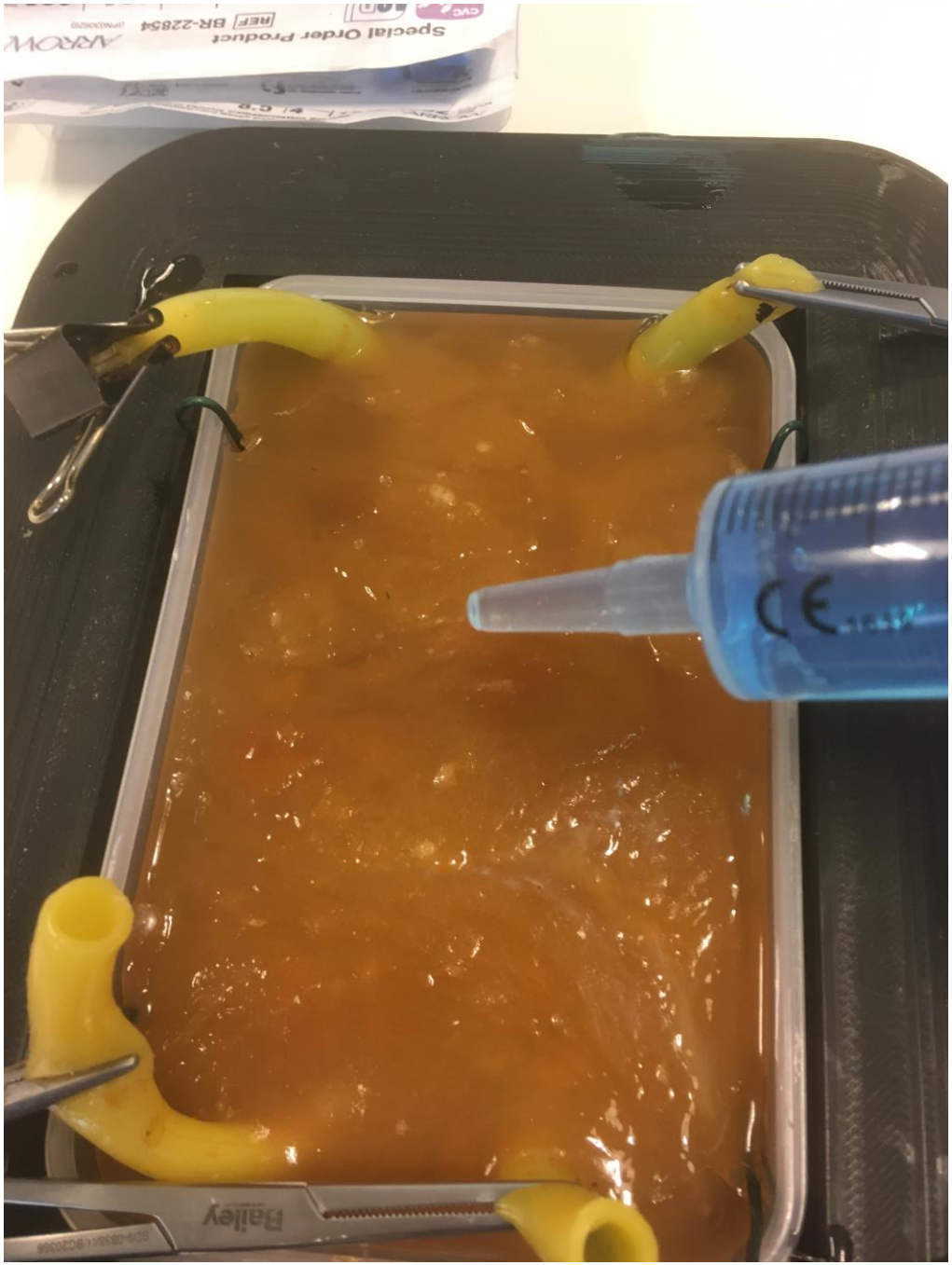

KENWOOD
Meta
MUCIL
4 in 1 MultiHealth
FIBER!
KELLY'S
SALTER


Website
Letter sent to nurses
Audit meeting
Training day
CVC placement



With surrounds that allow the trainee to fix the ultrasound probe- Made by our medical physics department using a 3D printer. An angled slope to add some complexity and simulate a round neck. Note the garden wire used to fix the rubber tubing in place.


TESCO
BLUE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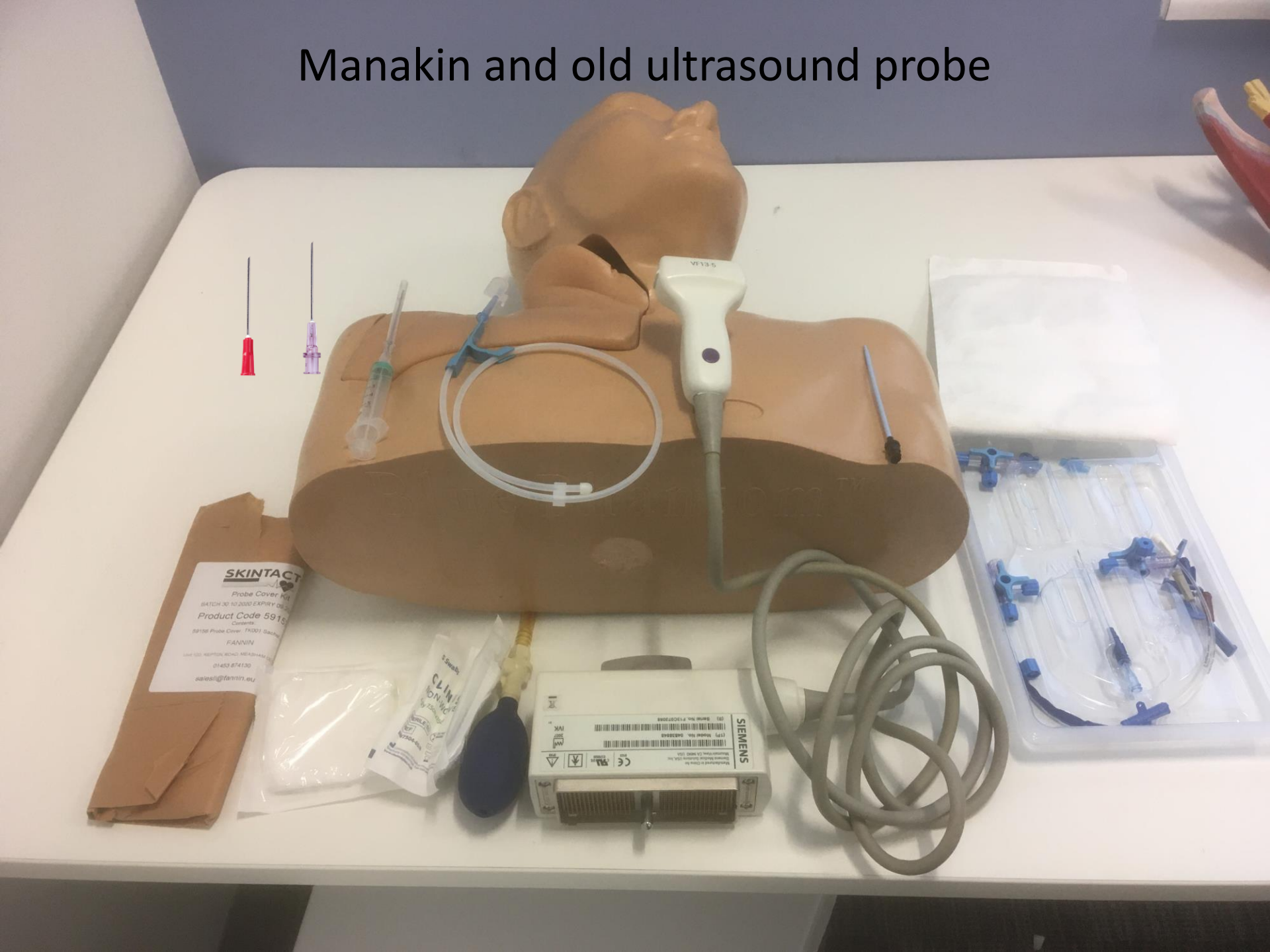
Bailey

Station one. Using the ultrasound machine. Aims

- How to turn on machine, cable at the back- is it pushed in? The fact it may turn itself off.
- How to set the depth and gain and how to maximise the view to see the front and back of the vein.
- Show how the probe can be fixed with the operator's hand fixed to the patient.
- Practice getting the vein in the middle of the image with the black mark on the probe then suggesting where the centre of the vein is.
- How the probe can be transposed so that left is right. The dot on the screen and the side of the probe- deliberately turn the probe around.
- The colour flow- the fact the vein can be red or blue, look at the pulses of vein and artery.
- See how head down and straining effects the vein, look at the venous and arterial pulses
- Practice compressing the vein and artery
- Follow the vein and artery up and down the neck and see how their relationship changes and look at how this is influenced by the degree of neck rotation
- Look at the radial artery and brachial anatomy
- Suggest that the ultrasound can be used during patient review to look at the femoral and subclavian vessels.
- Look at the vein in long axis and confirm its compensability.

Manakin and old ultrasound probe



The manakin and old ultrasound probe

- Practicing how to hold the probe so the operator's hand is fixed to the patient, explain that there are different ways of doing this.
- Go through how to prime the guide wire and how to get it ready next on the towel ready to use.
- Show how to drop the probe and pick up the guide wire and thread it through the needle
- Leave the learner to practice
- Also show how the dilator works and risk of over advancement
- Practice how to use the sheath and gel over the probe
- Requirements- manakin from the anaesthetic department, probe from Dr Thomas's desk, red non filter needle, guide wire and holder.
- Filter and non filter needles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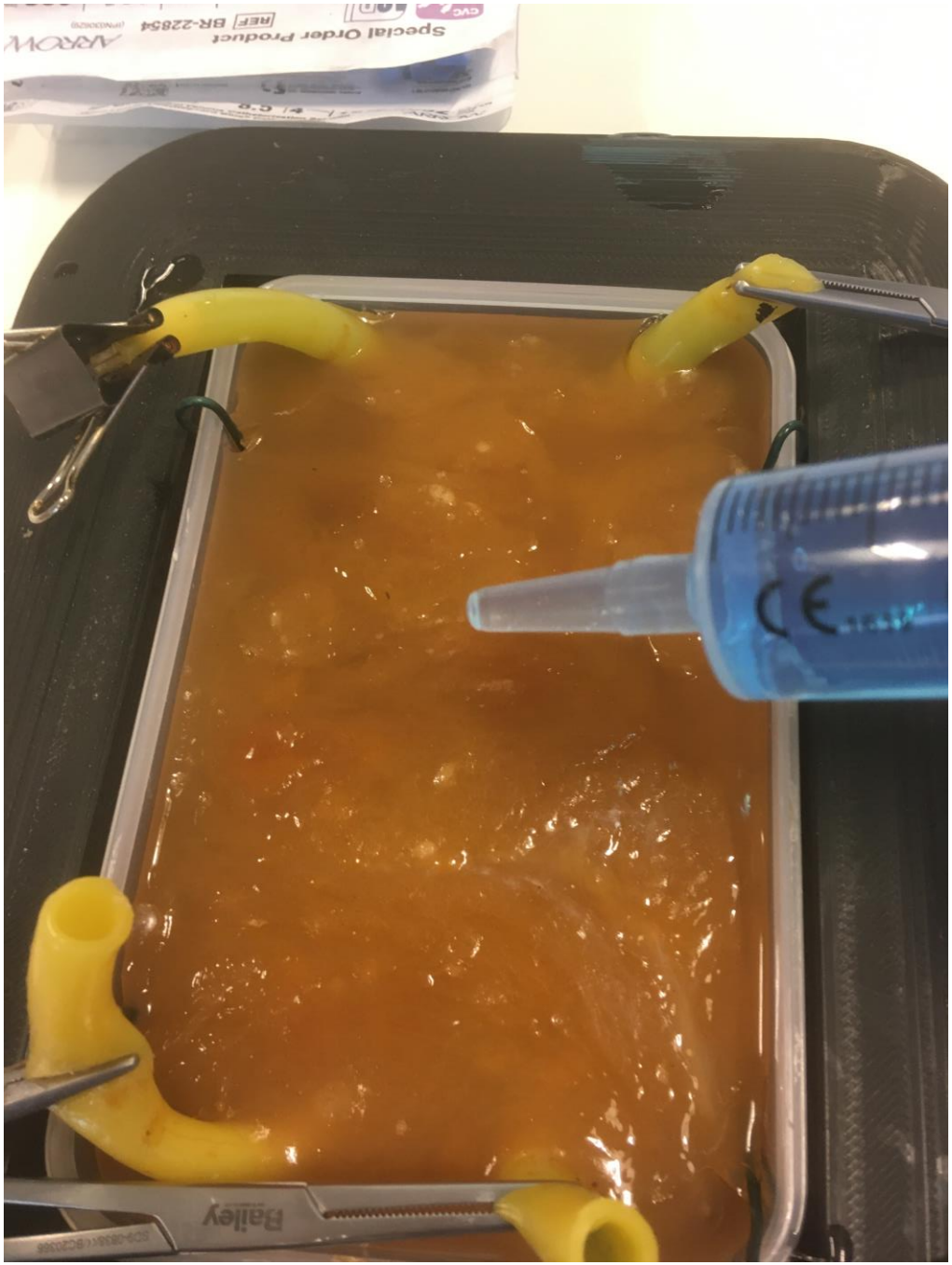
BLUE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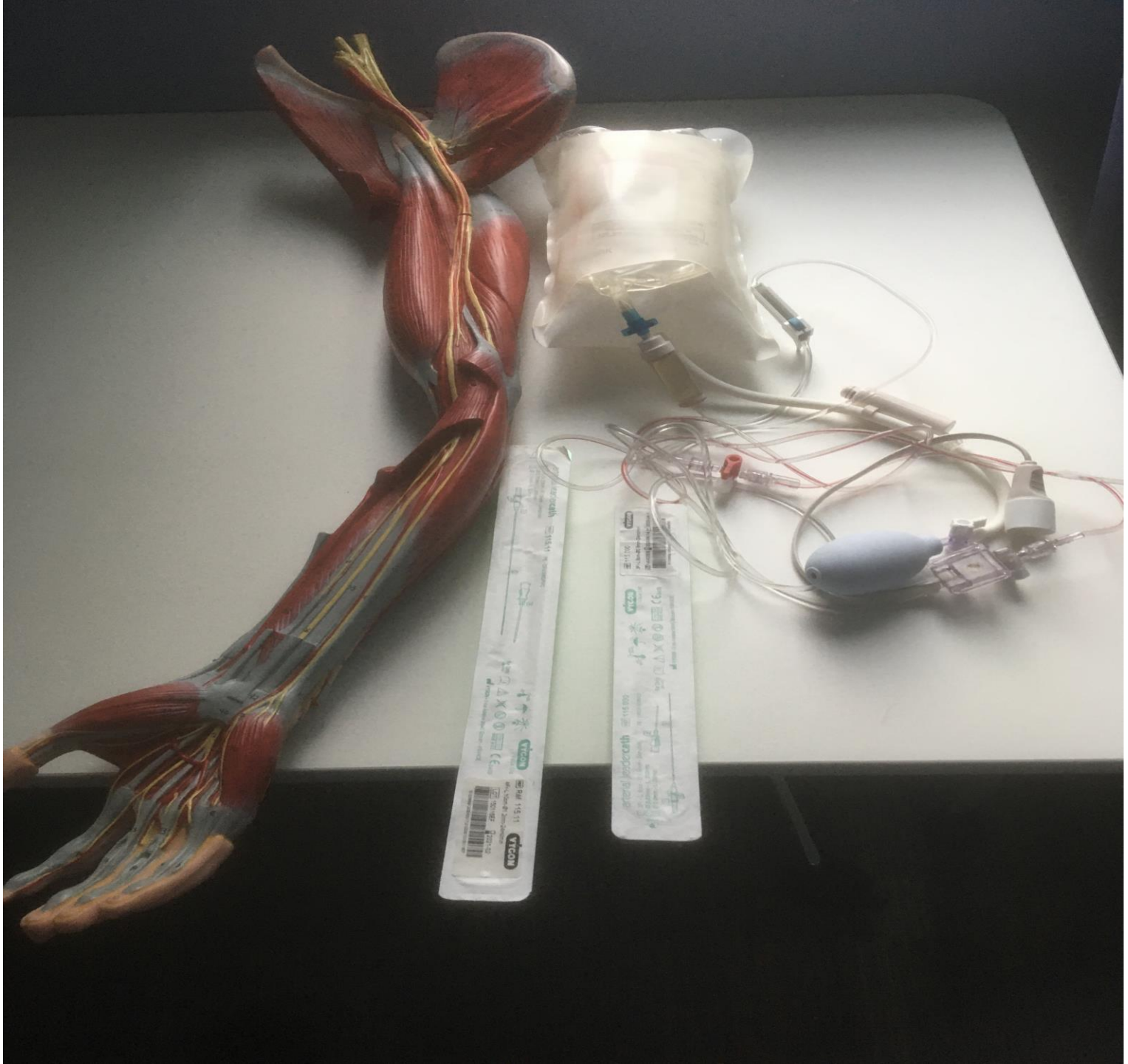
Gel models

- Requirements: Models and surround, 2 ultrasound machines and gel, CVC sets
- Aims:
- To practice holding the probe and getting in lined up with the centre of the vein directly under the black mark on the probe.
- To practice setting the depth and gain
- To practice looking at the screen while advancing the needle and emphasise the importance of looking at the screen.
- To practice picking up the guidewire and threading it
- Looking at the wire in long axis
- The idea that the needle can go to the left or right and beyond the ultrasound beam with the ‘Vein’ still seeming to be compressed.
- Try injecting some saline through the end of the needle to show how the tip can be identified and suggest this can be done with the local anaesthetic- show what the end of the needle looks like in ultrasound and try and see the needle in long axis.



Arterial line and pressure bag section

Requirements- a 20G arterial line and un opened 19G, **an arm manakin**, a pressure bag and transducer set that has been run through, a 5 ml syringe.

Aims

Contraindications- Renaud's disease, absent ulnar pulse, renal failure and a-v fistula done or planned, weak pulse

How to palpate the artery, what to do if the pulse is weak- give up, give metaraminol, feel other pulses- when to use the femoral artery- that will need a 19G needle.

What the flush solution is- why it's labelled and why glucose could kill the patient and to consider heparin allergy. Where the lead plugs in, how the line may be clamped.

How to get flush solution and draw it into the needle.

How to hold the needle and have the guide wire ready and pick it up and put it in.

What to do if it does not thread.

Transducing the line and the difference with the venous pulse, why this should always be done with a CVC line.