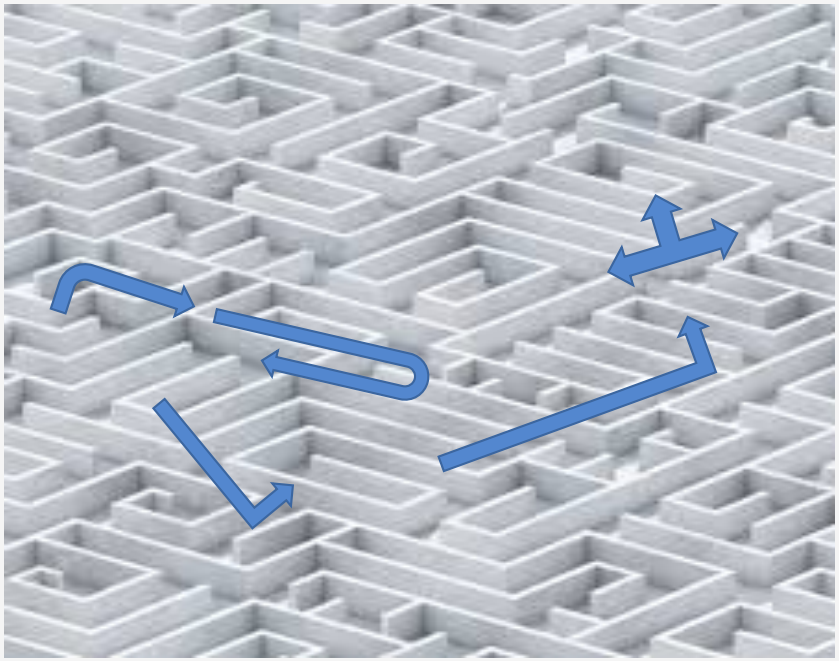
QUALE PERCORSO FORMATIVO PER L'IMPIANTATORE DI PICC

Laura Dolcetti
Coordiantore Infermieristico
Fondazione Policlinico Gemelli- Roma

GAVeCeLT 2017

DA DOVE COMINCIARE?




OPERATION
SILLY SKILL GAME
With SOUND FX!
Kids
AGE 6+
MB GAMES


L'ALLEGRO CHIRURGO
Con stridenti e divertentissimi
EFFETTI SONORI!
Bambini
ETÀ 6+
MB GIOCHI

HOW TO TRAIN?

SELF TRAINING ?

Real-time Sonography With Central Venous Access: The Role of Self-Training

Albert F. Olivier and David Feller-Kopman

Chest 2007;132;2061-2062
DOI 10.1378/chest.07-1930

[redacted] self training, once recognized as a self-willed earnest effort to achieve excellence, is implicitly regarded as an egocentric, deceiving, depreciative method of learning. Bravado without medical and legal appreciation!

[redacted] why shouldn't self-training be afforded an equal stance in the eyes of the same medical organizations [redacted]

A.F. Olivier 2007

... NO
GRAZIE !

Real-time Sonography With Central Venous Access: The Role of Self-Training

Albert F. Olivier and David Feller-Kopman

Chest 2007;132;2061-2062
DOI 10.1378/chest.07-1930

[redacted] Self-training should, however, be used in conjunction with, and not instead of formal didactics and instruction from experts/mentors. [redacted] The responsible way to develop skills in any procedure is to understand the concepts of the procedure, learn the psychomotor skills, and integrate them with clinical judgment and experience. Medical simulation combines deliberate practice and feedback with the goal of achieving mastery.[3] By combining didactics, simulation, and mentorship, the learning curve may be significantly reduced. It is the responsibility of our collective

D. Feller Kopman 2007

Ultrasuoni e accessi vascolari

Da un lato ...

Infusion Nursing: Standards of Practice **2006**

AVA campaign:
'No more blind sticking'

Commentary

Can you justify not using ultrasound guidance for central venous access?

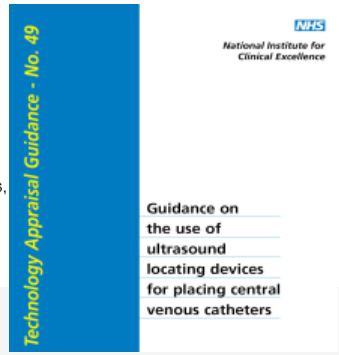
Andrew R Bodenham

Department of Anaesthesia, Leeds General Infirmary, Leeds, LS1 3EX, UK

Corresponding author: A R Bodenham, Andy.Bodenham@leedsth.nhs.uk

Published: 22 November 2006 *Critical Care* 2006,
This article is online at http://ccforum.com/content/10/6/175
© 2006 BioMed Central Ltd

See related research by Karakitsos *et al.*, http://ccforum.com/content/10/6/R162



Ultrasuoni e accessi vascolari

Dall'altro ...

British Journal of Anaesthesia **96** (4): 414–17 (2006)
doi:10.1093/bja/ael032

Editorial II

A.R. Bodhenam

Ultrasound imaging by anaesthetists: training and accreditation issues

"Operator inexperience or the use of unsuitable equipment, particularly in the more challenging patient, may increase rather than decrease complications"

Commentary

Can you justify not using ultrasound guidance for central venous access?

Andrew R Bodenham

Department of Anaesthesia, Leeds General Infirmary, Leeds, LS1 3EX, UK

Corresponding author: A R Bodenham, Andy.Bodenham@leedsth.nhs.uk

Published: 22 November 2006 *Critical Care* 2006, **10**:175 (doi:10.1186/cc5079)
This article is online at http://ccforum.com/content/10/6/175

See related research by Karakitsos *et al.*, http://ccforum.com/content/10/6/R162

"Operators are ethically and legally vulnerable if they have not been adequately trained, or use inappropriate equipment."

Self training / no training ?

NO, grazie

Training ? SI', GRAZIE

Anaesthesia
Journal of the Association of Anaesthetists of Great Britain and Ireland

Correspondence

Anaesthesia, 2009, **64**, pages 447–458

Ultrasound for central venous cannulation – are you trained to use it?

N. Harris
I. Hodzovic

"Training on the use of ultrasound for central venous cannulation needs to be urgently addressed in order to protect both patient and clinician."

Training ? SI', GRAZIE

"While incorporating ultrasound guidance into CVAD insertion procedures improves outcomes for both patients and clinicians, additional didactic and clinical training is required to achieve proficiency with its use during vascular access procedures"

AVA Position Statement 2008

Training ? SI', GRAZIE

"Vascular access clinicians of all disciplines must demonstrate mastery of these psychomotor skills by meeting the objective criteria for use within their employing institutions, obtaining appropriate ongoing education and training on the equipment in use in their institutions, demonstrating ongoing competency with these procedures as set forth by institutional policy, and meeting the criteria for licensure and practice in the locale(s) in which they are licensed"

AVA Position Statement 2008

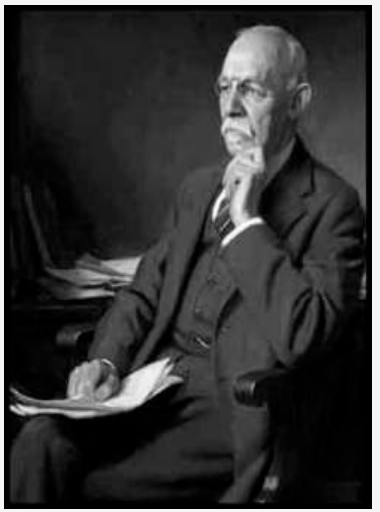

OPERATION
SILLY
SKILL
GAME
With
SOUND
FX!
Kids
MB
GAMES


L'ALLEGRO CHIRURGO
Con stridenti e
divertentissimi
EFFETTI
SONORI!
Bambini
MB

HOW TO TRAIN?

Training in Medicine

Traditional Educational Approach
(Halsted, 1892)



1) KNOWLEDGE

2) LEARNING BY DOING:
SKILLS (TS + nTS) + JUDGEMENT

Training: motivi di una evoluzione

Introduzione nuove tecnologie e procedure complesse (ad es.: LAPAROSCOPIA)

Diffusione in mani generalistiche di tecniche e procedure un tempo specialistiche (ad es. ULTRASUONI)

Aumento frenesia attività cliniche (DRG relata)

Peggioramento del clima medico-legale

ESIGENZA DI ADDESTRARE GLI OPERATORI NELLA COORDINAZIONE VISUO-MOTORIA **(HAND-EYE COORDINATION)**

SPINTA SU MODELLI DI TRAINING PRE / EXTRA CLINICO **(SIMULAZIONE)**

Training: nuovi modelli

Fornire all'operatore condizioni ideali per l'apprendimento senza:

- Mettere a rischio la salute del paziente
- Causare perdite di efficienza (anche economica) del sistema

SIMULAZIONE
per l'insegnamento di
basic skills (+ attitude)

TRAINING: **VANTAGGI DELLA SIMULAZIONE**

- Training agenda: operator-oriented
  - Possibilità di ripetere la pratica tutte le volte che si desidera secondo la propria tempistica e non secondo la tempistica del paziente
- Permission to fail
  - Possibilità di apprendere serenamente dagli errori
  - Possibilità di esplorare i limiti superiori della metodica e delle proprie capacità, invece che limitarsi alle condizioni di sicurezza imposte dal paziente reale
- Stima quantificata della performance
- Feedback
  - Solo in caso di simulatori "intelligenti" (digitali)
- Possibilità di integrare: skills training + judgement training

TRAINING: VANTAGGI DELLA SIMULAZIONE

- Analisi del processo di apprendimento
- Miglioramento della performance del trainer
- Possibilità di standardizzare il modello di training
- Esportabilità del modello di training

SIMULAZIONE PER CVC ECO-GUIDATI

L'introduzione degli ultrasuoni nelle manovre di accesso vascolare ha accentuato il fabbisogno di training su simulazione

- diffusione di metodica di imaging in mani non specialistiche
- teoricamente, aumento complessità procedura (almeno nelle fasi iniziali della curva di apprendimento)
- NECESSITA' DI COORDINAZIONE VISUO-MOTORIA MEDIATA DA IMMAGINI
- patient safety + hospital cost-effectiveness

SIMULAZIONE !!!

- Simulation is already a mainstay of training in technical skills
- Simulation on inanimated phantoms allows:
  - easier deconstruction of the procedure into its single phases
  - lower learning stress (multiple attempts are feasible)
- In fact, hands-on sessions on inanimated phantoms have demonstrated to **improve training results in different clinical specialties and procedures**

LA CONSENSUS WOCOVA

British Journal of Anaesthesia Page 1 of 10
doi:10.1093/bja/aes499

BJA

Evidence-based consensus on the insertion of central venous access devices: definition of minimal requirements for training

N. Moureau[1], M. Lamperti[2*], L. J. Kelly[3], R. Dawson[4], M. Elbarbary[5], A. J. H. van Boxtel[6] and M. Pittiruti[7]

British Journal of Anaesthesia Page 1 of 10
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- Rigorosamente *'Evidence-based'*
- Utilizzato il metodo GRADE-RAND raccomandato dalla Cochrane Rev. Come metodo di scelta per le consensus
- ISO e JCAHO accettano solo metodi di certificazione basati su EBM

British Journal of Anaesthesia 110 (3): 347–56 (2013)
Advance Access publication 29 January 2013 · doi:10.1093/bja/aes499

BJA

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Experiential learning is a model of learning, in which learning/meaning is derived from direct experience. According to Bruner,[25] professional judgement and higher level skills can be gained from repeated patient care experiences. Experiential learning can be attained in a reflective cycle such as Kolb's learning cycle.[26] This cycle applies to patient experiences by observing and reflecting, formulating abstracts and generalizations, and finally testing the implications of concepts in new situations. Theoretical perspective and empirical knowledge are gained from various disciplines including: psychology, sociology, ethics, management, education, and biological sciences.

Experiential education is a methodology where educators/mentors purposefully engage with learners in direct experience and reflection in order to increase knowledge, develop skills, and clarify values.[27] The practical application of experiential learning has to take into account the learner's previous experience, knowledge base, and theoretical preparation. Context of learning will vary, but will guide the learner from being dependent to becoming a supervised participant and then, onto supported independence.

Il metodo:
experential learning
and education

1. Necessario un training clinico

British Journal of Anaesthesia 110 (3): 347–56 (2013)
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Situated learning is a model of learning in a community of practice where learning is derived from active or guided participation. Guided participation involves cognitive (thinking) ability, problem solving, adequate knowledge, personal skills, and appropriate attitudes and values. Students learn best when involved in genuine professional practice, supported by an experienced, capable mentor. The experienced

2. Full immersion (seguire il processo decisionale in casi concreti
3. Competenza “globale” (non solo venipuntura)

ECOGRAFIA E ACCESSI VASCOLARI OGGI

Valutazione ecografica preliminare

Puntura ecoguidata

Controllo della punta,

Diagnosi-esclusione di PNX/emotorace

APPLICAZIONE AI PICC

- Sonda alla piega del gomito
- Identificazione del fascio brachiale (arteria, vena, nervo) e vena basilica
- Esplorazione completa verso l'alto con "tecnica dell'occhiolino"
- Valutazione calibro, decorso e rapporti anatomici
- Criteri di scelta – scelta concreta (incluso exit site)

SCELTA DELLA VENA

- SEI CRITERI per scegliere la vena da incannulare
  - Calibro
  - Profondità
  - Collassabilità con respiro
  - Compressibilità da pulsazione arteriosa vicina
  - Contiguità con strutture 'a rischio'
  - Praticità dell'exit site

ECOGRAFIA E ACCESSI VASCOLARI OGGI

PUNTURA ECOGUIDATA

PRINCIPI DI TECNICA ECOGUIDATA

- Basi dell'ecografia per una corretta acquisizione e interpretazione dell'immagine ecografica
- Knobology
- Anatomia ecografica e variabilità anatomica
- Venipuntura 'eco-guidata'
- Uso globale dell'ecografo
- DIDATTICA TEORICA + LAB TRAINING/SIMULAZIONE

SIMULATORE

British Journal of Anaesthesia Page 1 of 10
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BJA

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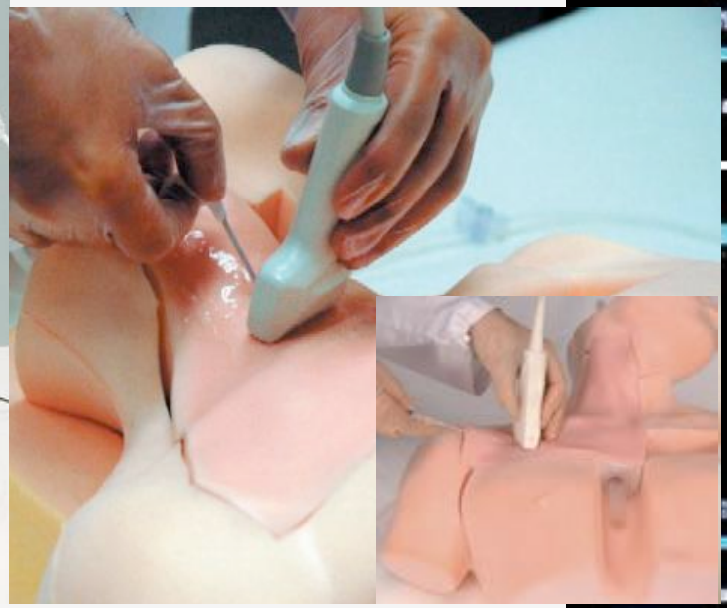
Anatomical models

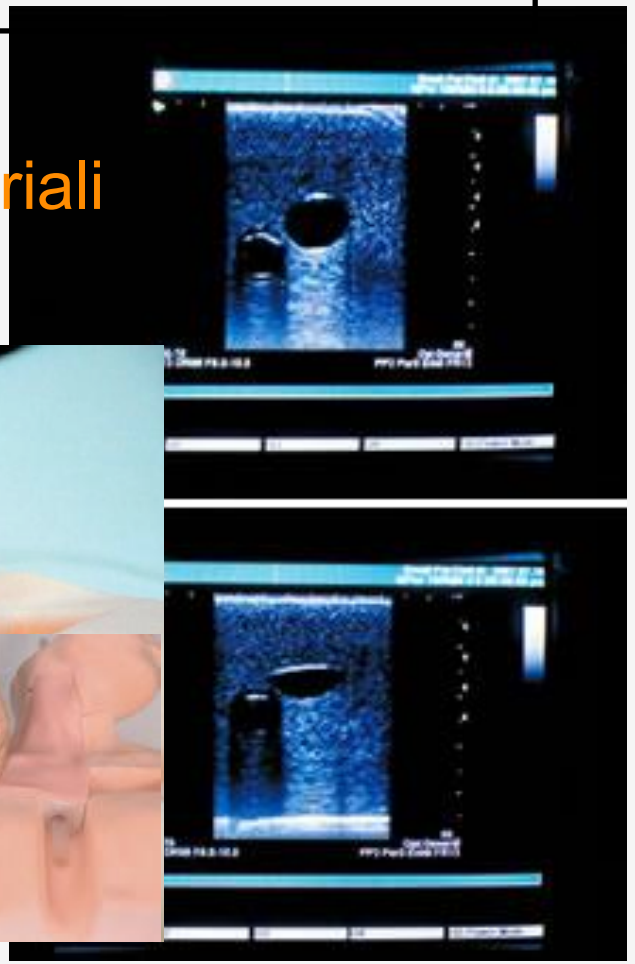
There are a variety of inanimate models useful for simulating vessel anatomy visualization with ultrasound. The best simulation models should include vessels and also mimic the normal body anatomy with muscles, soft tissues, and bones. For this reason, inanimate animal models such as turkey breasts may be effective for simulation practice with ultrasound.

In the future, virtual simulators may be available for perfect hand–eye coordination of the trainee.[53–55]

SIMULATORI

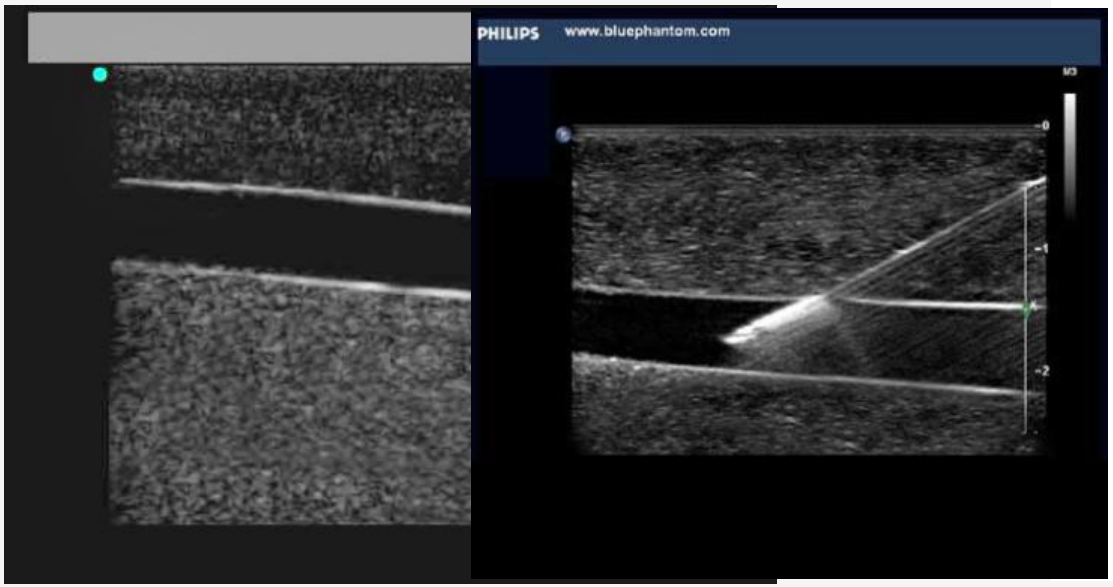
Phantoms industriali
"anatomici"



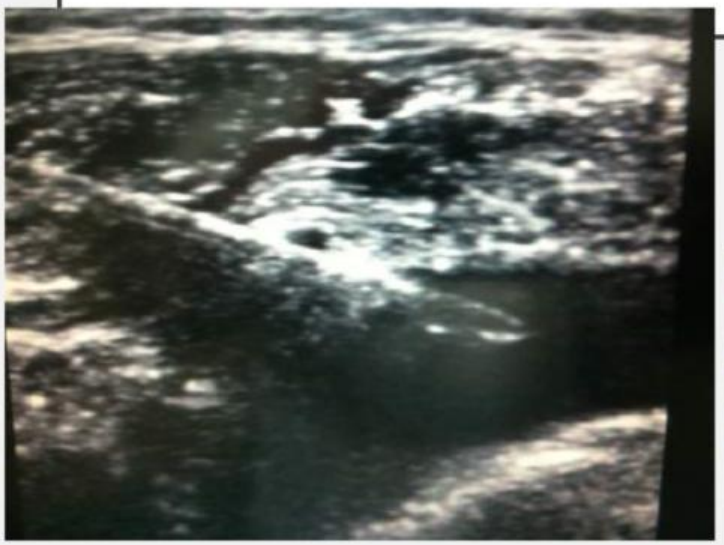


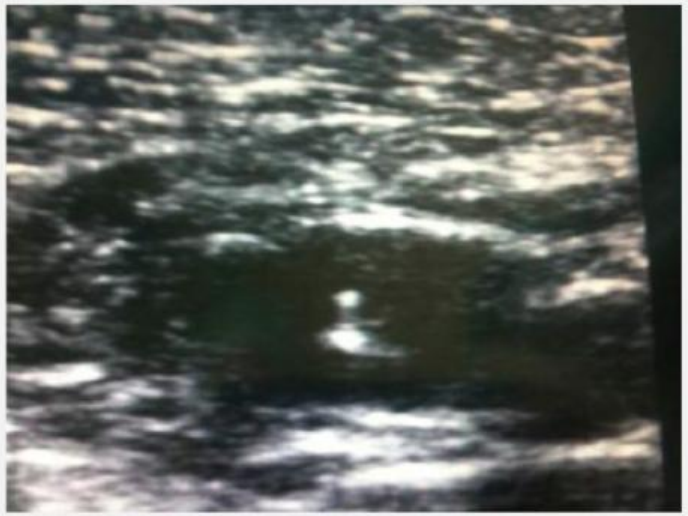
SIMULATORI

Phantoms industriali “semplificati”



‘IN PLANE’ VS. ‘OUT OF PLANE’





SIMULATORE "BIOLOGICO"

Vantaggi

- Basso costo
- Ripetibilità
- Versatilità e buona simulazione della realtà (incluse alcune difficoltà basilari)
- Possibilità di simulare l'intera manovra
  - Contestualizzazione
  - Basic skills + complex skills
  - Partial simulation + global simulation

Svantaggi

- Durata limitata e deperibilità (???)

The Seven Steps Protocol

PHASE 1 – ULTRASOUND IMAGING

- Step 1: probe orientation
- Step 2: hand stabilization + static and dynamic evaluation of the vein (short axis scan)
- Step 3: shift to long axis scan of the vein

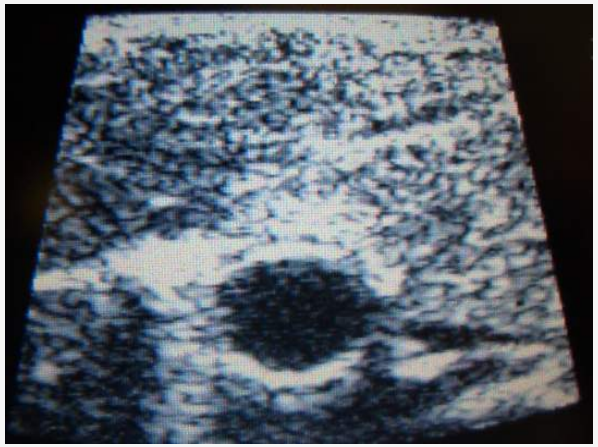
PHASE 2 – US GUIDED NEEDLE MANIPULATION

- Step 4: static visualization of the needle and its tip
- Step 5: dynamic visualization of the needle and its tip without venous target
- Step 6: techniques of US guided venipuncture

PHASE 3 – CATHETER INTRODUCTION

- Step 7: complete simulation of field preparation, catheter introduction, securement and medication + US visualization of catheter within the lumen

STEP 1 – PROBE ORIENTATION



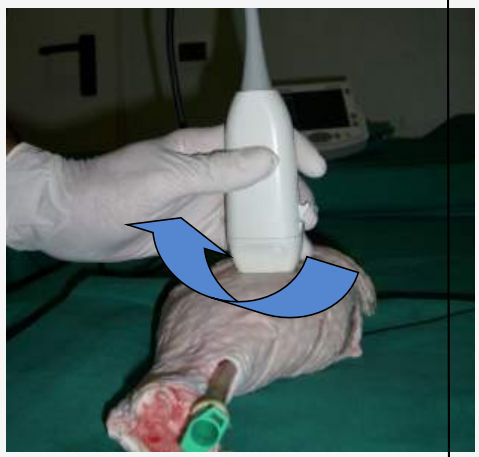
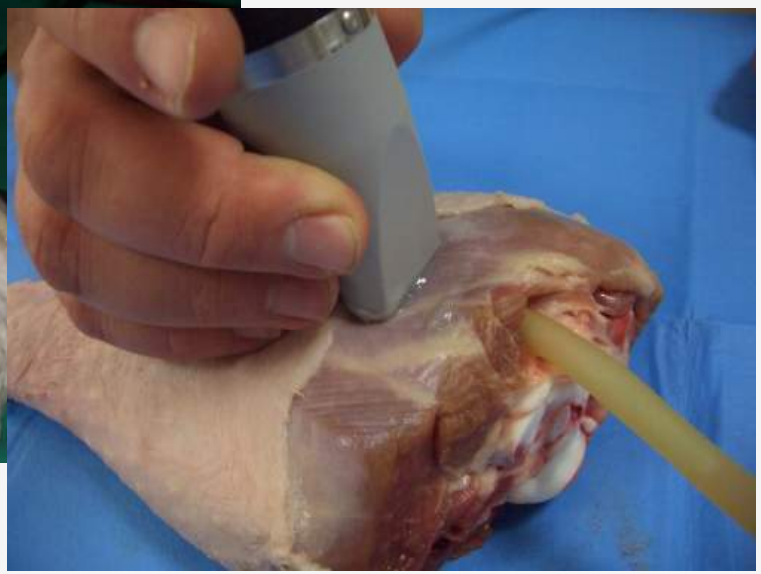


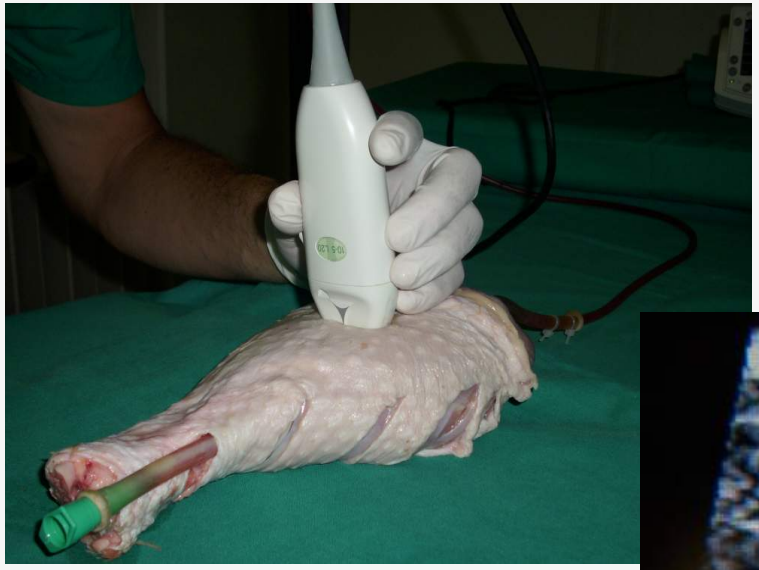
Image specularity after 180° probe rotation

STEP 2A – HAND STABILIZATION

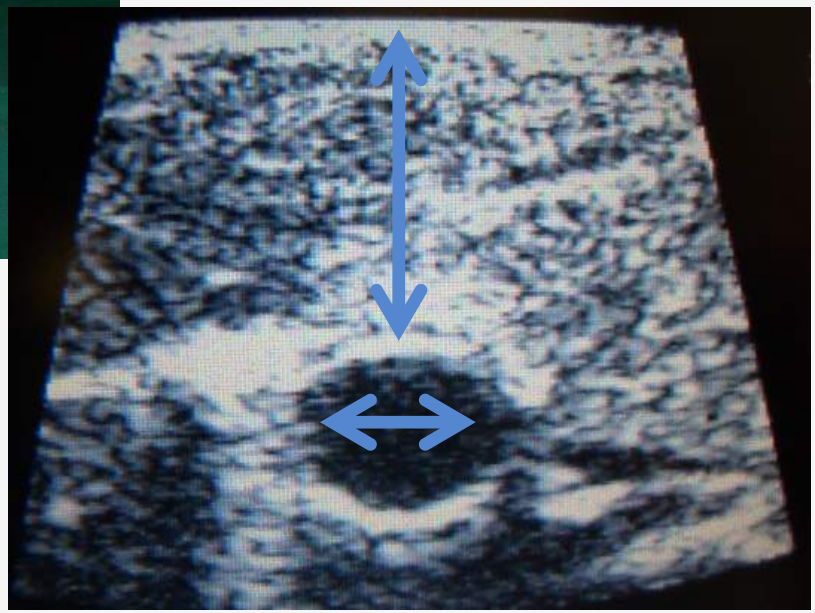
The ulnar hand margin lies on the phantom surface to avoid probe slipping



STEP 2B – STATIC EVALUATION

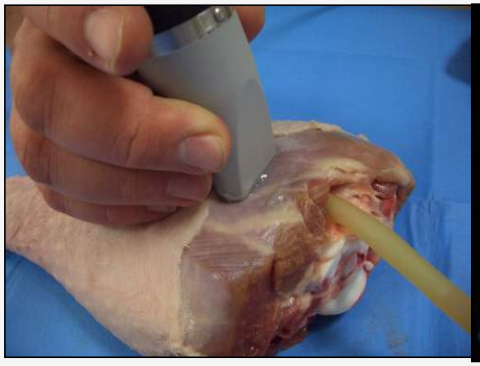


Vein diameter and depth



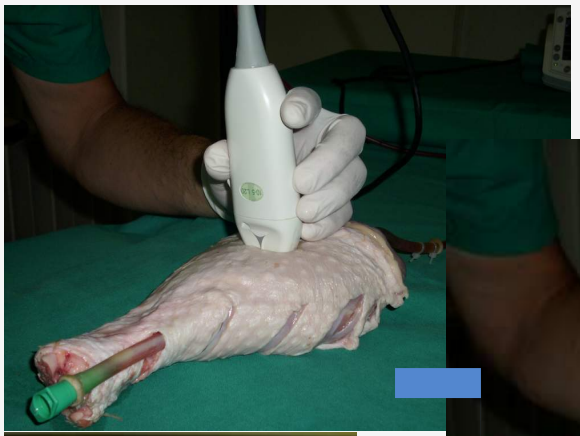
STEP 2C – DYNAMIC EVALUATION

Vein compressibility



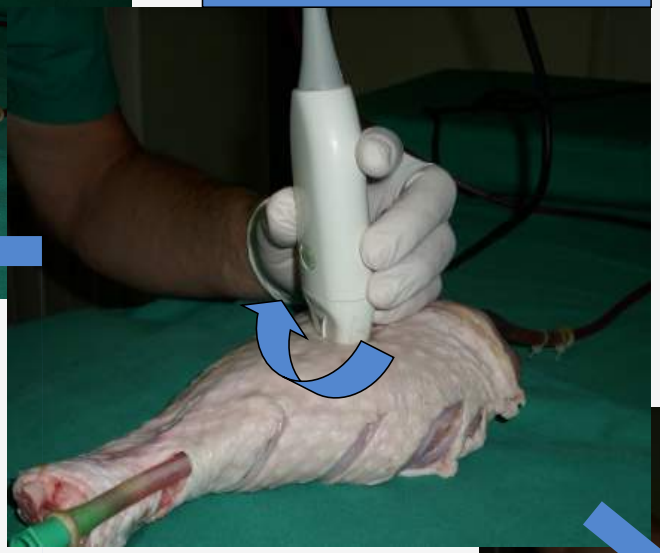
Probe sliding to evaluate any change in venous depth and course

STEP 3 – SHIFT TO LONG AXIS

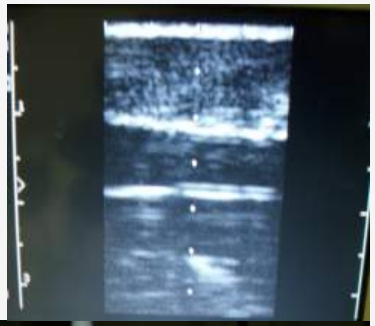


1) The ”short axis” vein image is centered in the screen …

2) …90° clockwise probe rotation …



3) … until a longitudinal view of the vein is reached

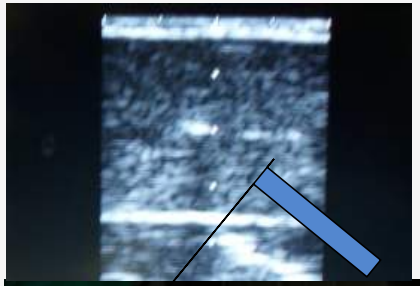


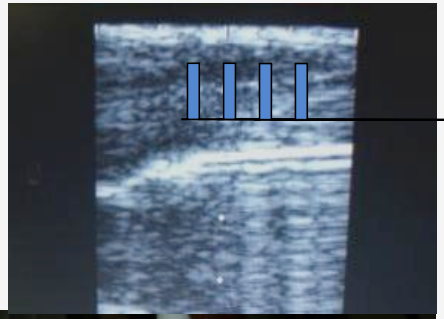
STEP 4 – STATIC NEEDLE/TIP VISUALIZATION

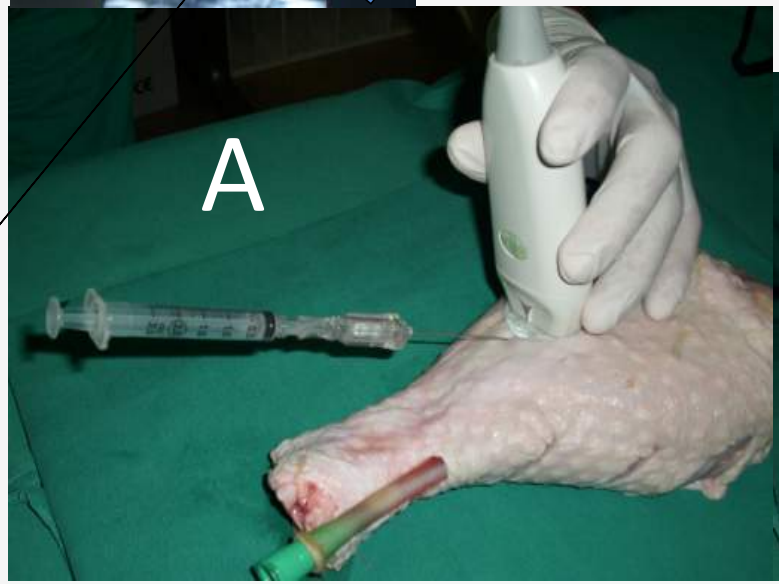
The trainee scans the phantom's soft tissue looking for the needle (no needle manipulations in this step):

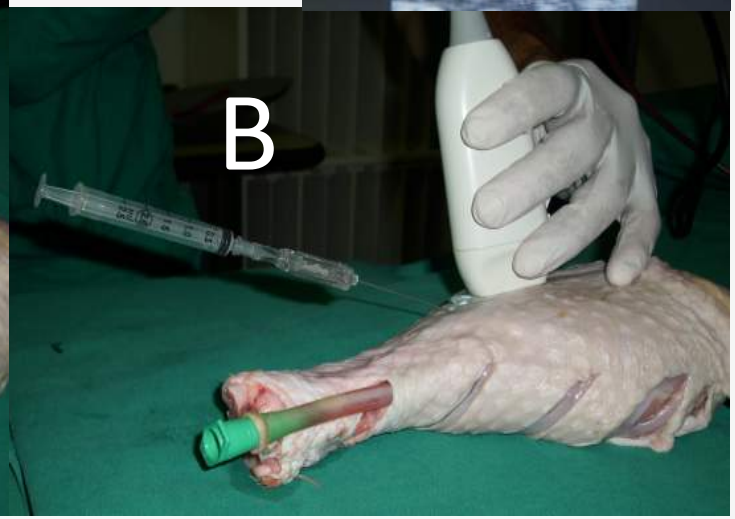
A) out of plane

B) in plane





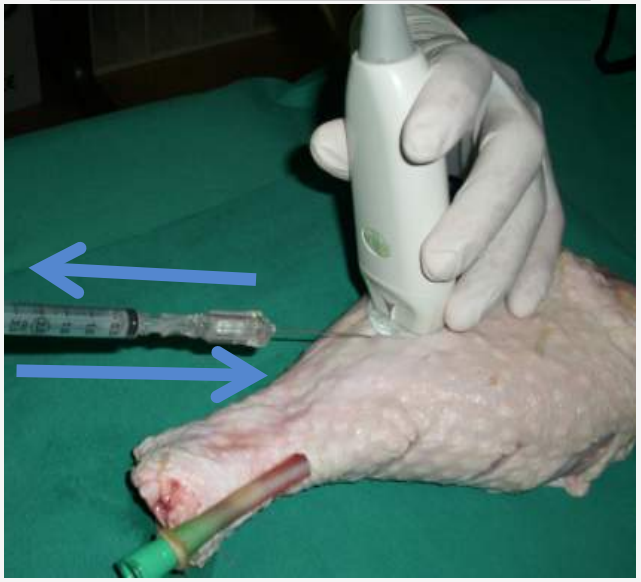




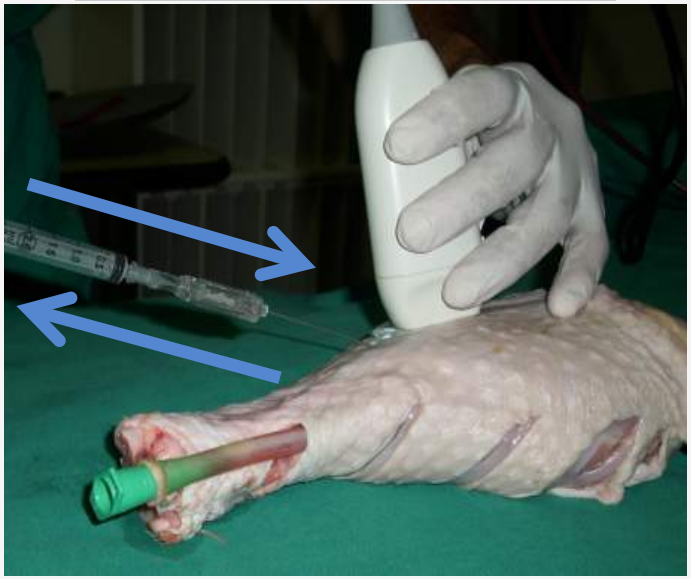
STEP 5 – DYNAMIC NEEDLE/TIP VISUALIZATION

The trainee manipulates the needle (introduction and extraction) within the phantom soft tissue under close US guidance.
NO ATTENTION TO VENOUS TARGET IN THIS STEP

A) out of plane



B) in plane

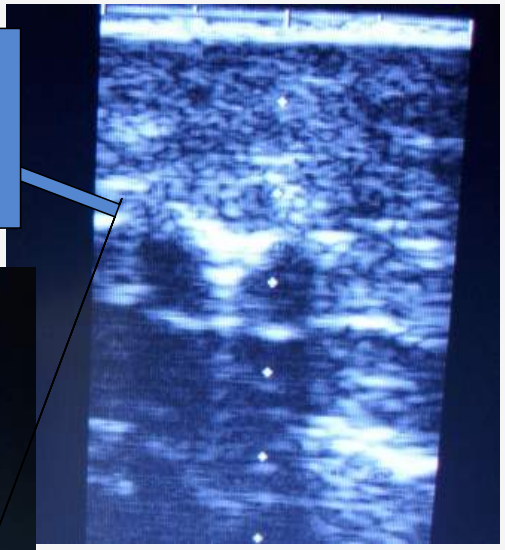


Close attention to visualization of needle tip during probe movements is required

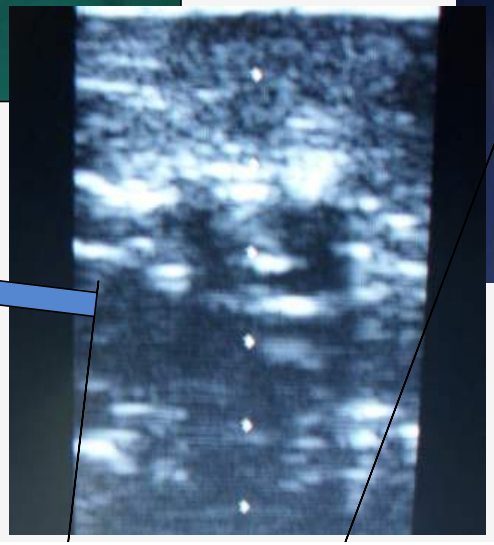
STEP 6A – US GUIDED VENIPUNCTURE

SHORT AXIS
+
OUT OF PLANE

Vein wall introflection and needle tip visualization

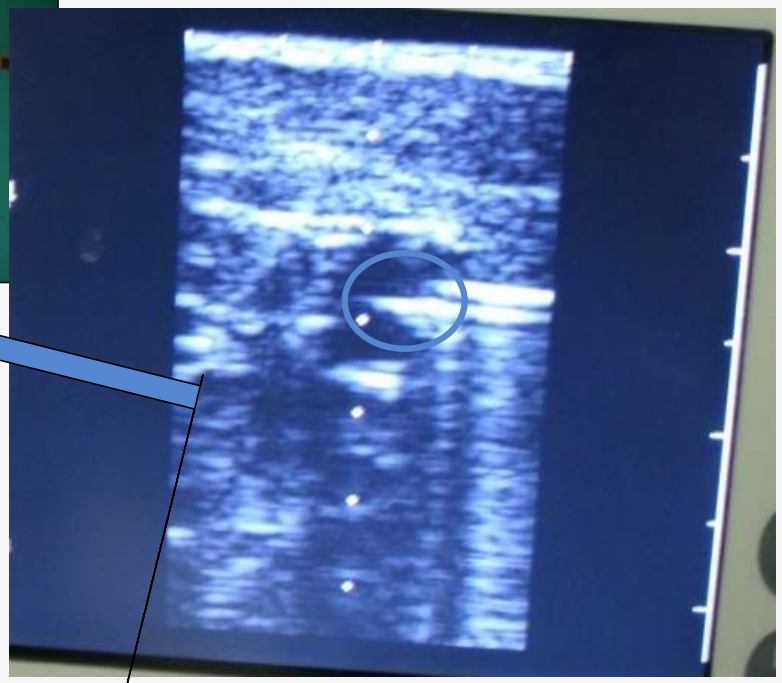


Correct visualization of needle tip within the vessel lumen



STEP 6B – US GUIDED VENIPUNCTURE

SHORT AXIS
+
IN PLANE

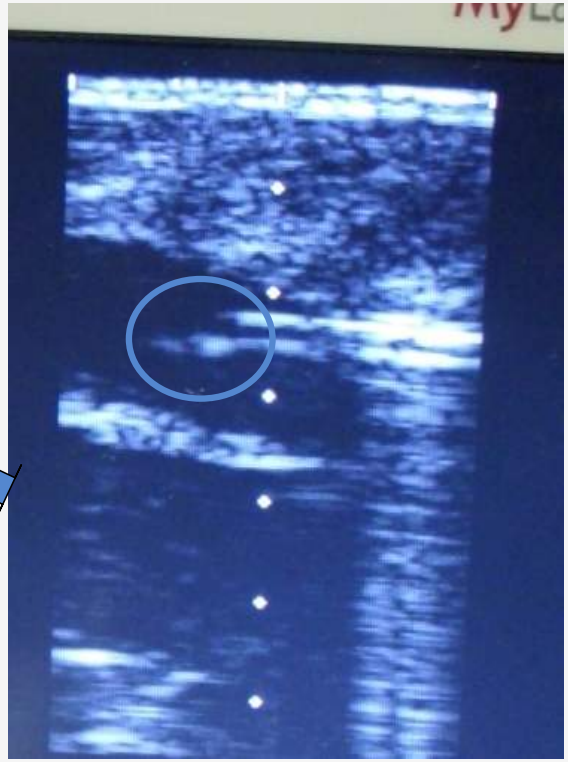


Correct visualization of needle tip within the vessel lumen

Note the bevel image

STEP 6C – US GUIDED VENIPUNCTURE

LONG AXIS
+
IN PLANE

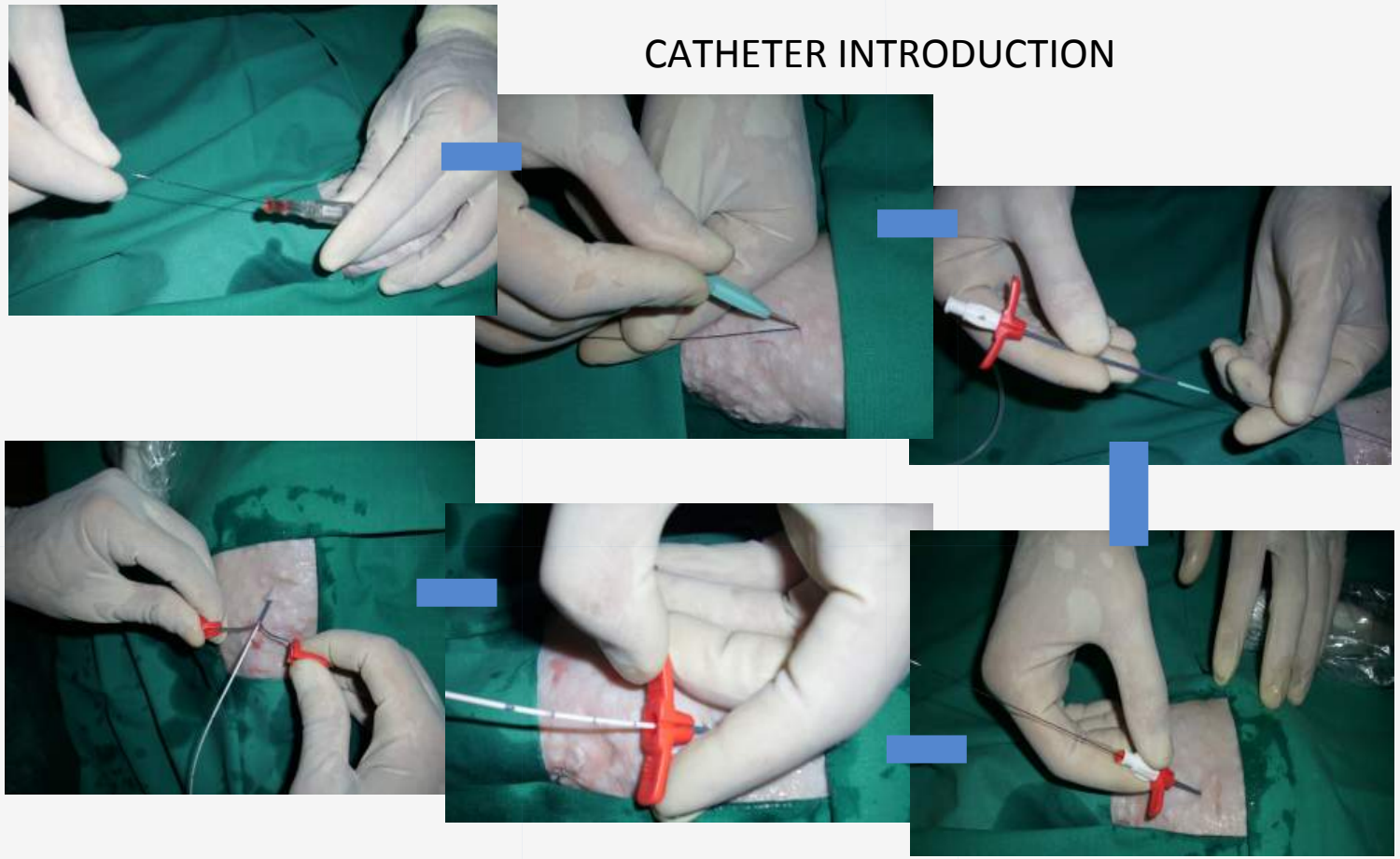


Correct visualization of needle tip within the vessel lumen

Note the bevel image

STEP 7 – Procedure simulation

CATHETER INTRODUCTION



STEP 7 – Procedure simulation

CATHETER SECUREMENT AND MEDICATION

ECOGRAFIA E ACCESSI VASCOLARI OGGI

CONTROLLO DELLA PUNTA

W_R3 Education on Tip Placement	Education on CVAD tip placement is based on three essential features that reduce risk: high blood flow, parallel positioning to the vessel, and pulsatility of blood flow. To achieve these three ideal factors of tip location, the tip of the CVAD is at or near the cavo-atrial junction

- Corretto posizionamento della punta
- Tecniche di 'tip location'
- Tecniche di 'tip navigation'
- DIDATTICA TEORICA + LAB TRAINING/SIMULAZIONE

ECG

REGISTRAZIONE INTRACAVITARIA
VENA CAVA SUPERIORE
REGISTRAZIONE INTRACAVITARIA
ATRIO DESTRO
REGISTRAZIONE INTRACAVITARIA

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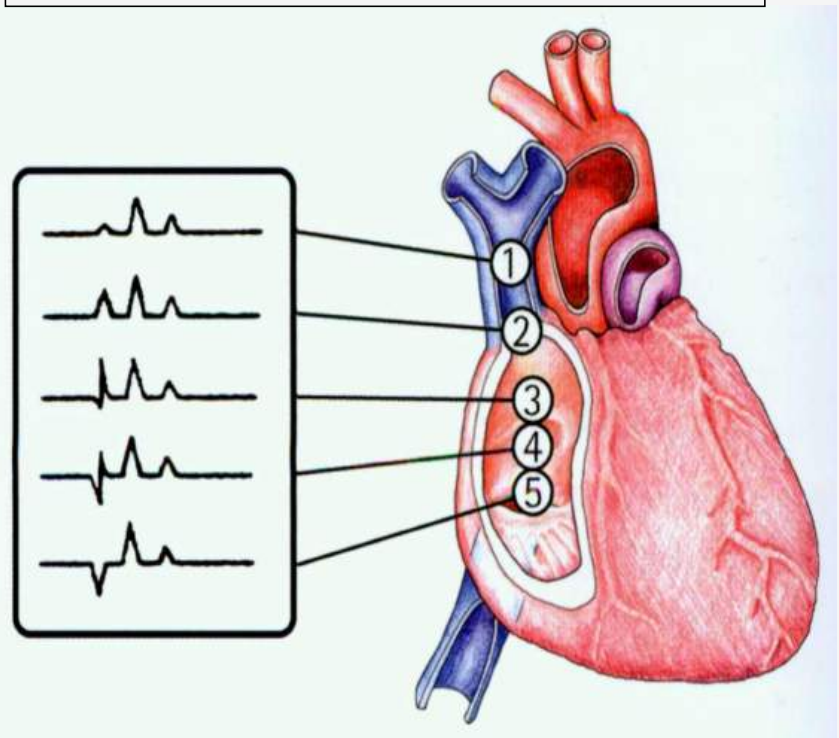
GUIDA ECG ENDOCAVITARIA

GAVeCeLT Gli Accessi Venosi Centrali a Lungo Termine

E' un ECG endocavitario che utilizza un elettrodo solidale con il catetere venoso



- ***Se un elettrodo endocavitario viene avanzato nel sistema venoso dalla periferia fino al cuore, si leggeranno sul tracciato modificazioni dell'onda P***
- ***Avvicinandosi al cuore, l'onda P cresce progressivamente in ampiezza raggiungendo un massimo e poi decrescendo di nuovo fino a diventare negativa quando ci si allontana dal cuore verso la cava inferiore***
- ***In periferia: onda P endocavitaria = onda P di superficie***
- ***VCS (segmento medio-distale): onda P = da 1/3 a 1/2 della massimale***
- ***Giunzione atrio-cavale = inizio della P massimale (Yeon, Schummer) o 2/3 della P massimale (Pittiruti-La Greca)***
- ***Ingresso in atrio destro = ampiezza massima dell'onda P (per un tratto variabile intorno a 2 cm)***
- ***Atrio profondo (oltre nodo S-A) = riduzione onda P e inizio componente negativa fino a***

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GUIDA ECG ENDOCAVITARIA

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1a. V. ascellare

1b. V. anonima

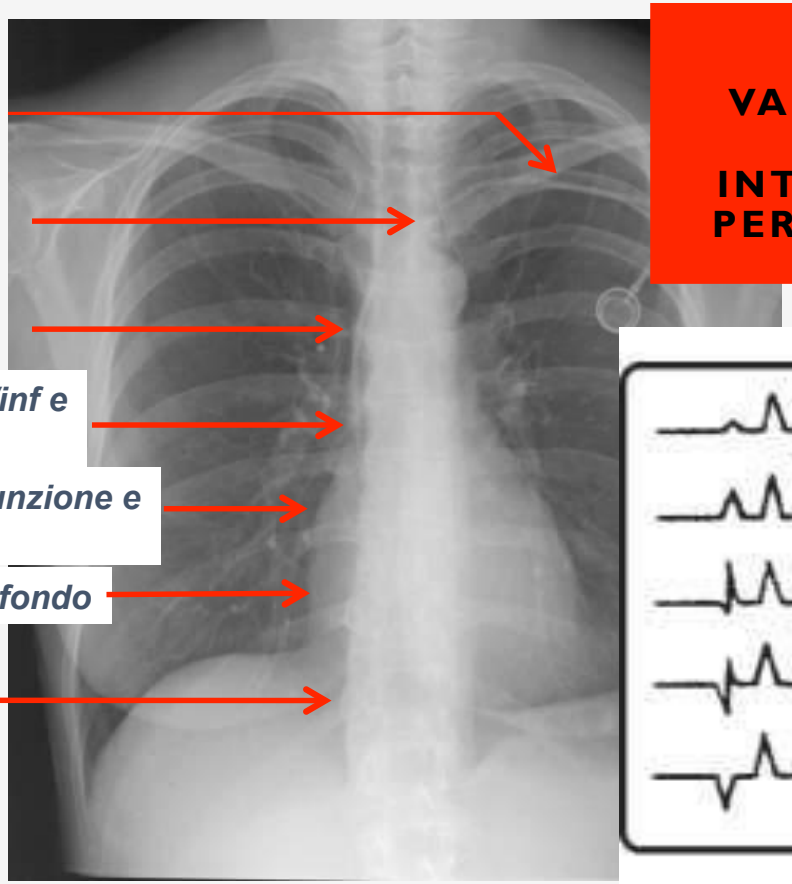
1c. VCS, 1/3 sup.

2. VCS, 1/3 medio/inf e giunzione

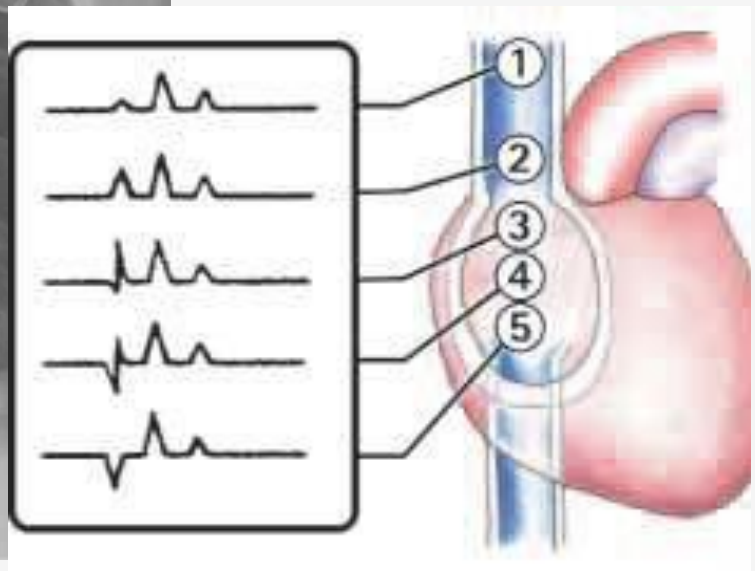
3. Atrio destro (giunzione e 1/3 sup)

4. Atrio destro profondo

5. VCI



PRINCIPIO BASE VARIAZIONI ONDA P IN REGISTRAZIONE INTRACAVITARIA DALLA PERIFERIA ALL'ATRIO DX



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GUIDA ECG ENDOCAVITARIA

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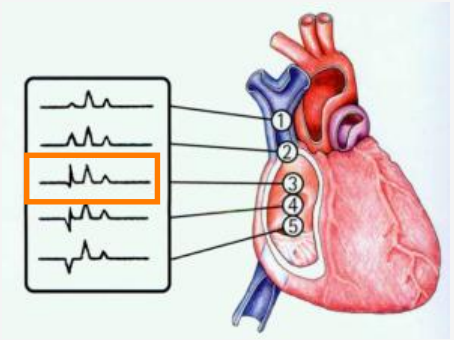
PUNTA NEL SEGMENTO "DISTALE" DELLA VCS / GIUNZIONE ATRIO-CAVALE



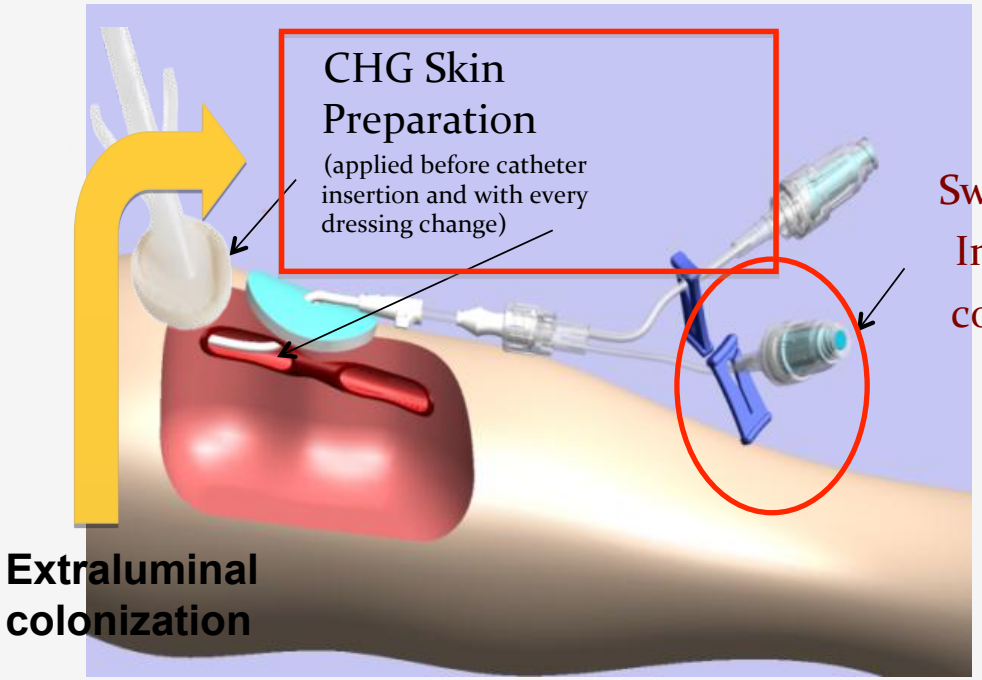
Onda P endocavitaria = 2/3 della massimale oppure massimale iniziale

ECOGRAFIA E ACCESSI VASCOLARI
OGGI: COMPLICANZE

W_R4 Infection	Education to prevent catheter-related primary bloodstream infections focus on pre, intra, and post-procedure insertion, care, and maintenance. Three main sources of infection contamination: the catheter–skin junction (extraluminal), the needleless connector and hub (intraluminal), and iatrogenic contamination. Topics to include: site selection, device selection, indications for use, maximal barrier precautions, hand washing, skin antisepsis, and the use of central line checklists are included in CVAD insertion course. Observers, empowered to stop a procedure if contaminated, are part of the implementation of the educational programme

- Prevenzione delle CR-BSI
- Pre-, Intra- & post- procedura
- DIDATTICA TEORICA + LAB TRAINING/SIMULAZIONE

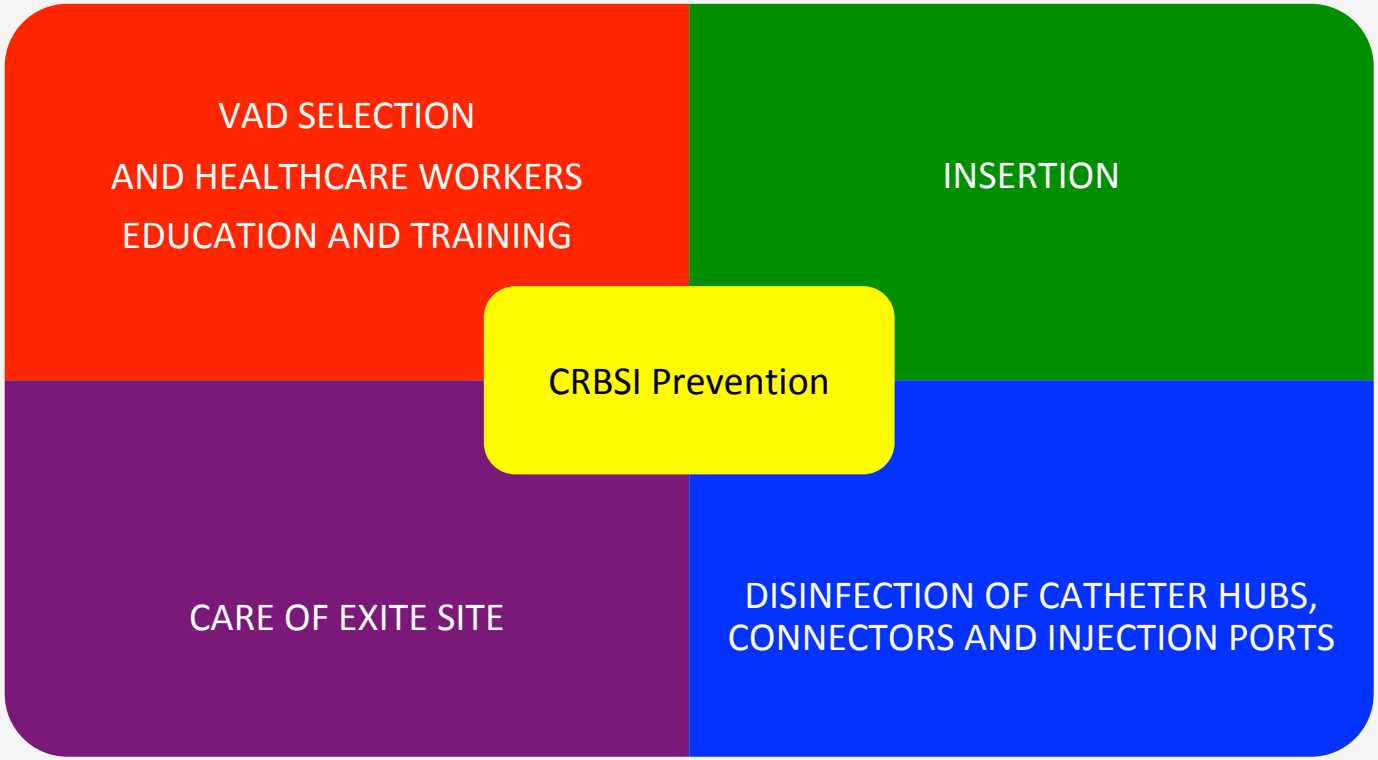
W_R7 Education on Care and Maintenance	CVAD care and maintenance is addressed in CVAD education programme. Complications from CVAD use are related to the insertion procedure or from continued care and maintenance of the device



GESTIONE

- Elenco dei dispositivi da illustrare
- Medicazioni
- Sutureless securement devices
- Needle-free connectors
-
- Elenco delle manovre da illustrare
- Medicazione con garza
- Medicazione trasparente
- Principii di asepsi e tempistica

- Spazio per discussione e domande


VAD SELECTION
AND HEALTHCARE WORKERS
EDUCATION AND TRAINING
INSERTION
CRBSI Prevention
CARE OF EXITE SITE
DISINFECTION OF CATHETER HUBS,
CONNECTORS AND INJECTION PORTS

Targeting zero: minimizzare le complicanze associate all'impianto e alla gestione degli accessi venosi

Targeting zero: how to minimize the complications associated to insertion and management of venous access devices

TEACHING PROTOCOL

*La Greca A, Pittiruti M et al

4 hours of theory

ULTRASOUND ISSUES

- Basic principles of US physics
- US anatomy of the neck, supraclavicular and infraclavicolar fossa, groin, arm
- US guided vein sticking techniques
- Pitfalls of US imaging and US needle visualization
- Complications of improper US guidance and prevention of common mistakes

VASCULAR ACCESS ISSUES

- Indications for CVC insertion and criteria for a correct device selection
- Early and late complications of CVC insertion and their prevention
- Role of US in preventing early and late complications
- International guidelines regarding device selection, insertion and management

TEACHING PROTOCOL

4 hours of lab training

Vascular anatomy and US probe handling on healthy volunteers

Training on a home-made phantom, according to a strictly standardized step-by-step skills session protocol (described in detail in a separate study*)

Step 1: probe orientation with both hands; short axis scan of the vein; recognition of image specularity after 180° probe rotation
Step 2: hand stabilization so to avoid 'probe slipping' and to keep the vein in the centre of the monitor; static and dynamic evaluation of the vein (direction, diameter, depth, compressibility)
Step 3: 90° clockwise rotation of the probe, from short axis to long axis scan of the vein; pitfalls of long axis scanning
Step 4: static visualization of the needle and its tip (both 'out of plane' and 'in plane'); pitfalls of needle tip visualization
Step 5: dynamic visualization of the needle and its tip without venous target; the needle is pulled out of (and pushed into) the phantom under US control (both 'out of plane' and 'in plane')
Step 6: technique of US guided venipuncture, both in short axis scan (with the needle 'out of plane' or 'in plane') and in long axis scan (needle 'in plane'); pitfalls of the three procedures
Step 7: technique of final venous cannulation; introduction of the guidewire and its visualization within the lumen (short axis and long axis scan); introduction of the catheter (through standard and modified Seldinger technique) and US visualization within the lumen (short axis and long axis scan).

*

*La Greca A, Pittiruti M et al

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22ND ANNUAL CONGRESS
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VIENNA, AUSTRIA / 11-14 OCTOBER 2009

ESICM VIENNA 2009

ESICM ANNUAL CONGRESS, VIENNA, 11 – 14 OCTOBER 2009 I "PATIENT SAFETY AND QUALITY OF CARE IN INTENSIVE CARE MEDICINE"

TEACHING PROTOCOL

4 clinical procedures observed

The trainees observe the routine activity of our vascular access team (minimum 4 procedures), participating in case discussion

*La Greca A, Pittiruti M et al

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TEACHING PROTOCOL

*La Greca A, Pittiruti M et al

4 procedures performed under supervision
Tutored learning curve and late audit

4 procedures

The trainees perform a minimum of 4 US guided CVC insertions under the supervision of an expert operator.

Tutored learning curve

The tutored learning curve is completed during a 1 week full immersion in our routine vascular access activity. Active involvement in case discussion, device selection and technical problem solving is stressed.

Late audit

The trainees are invited to came back to our vascular access service after three months of autonomous activity and discuss their results.

VALUTAZIONE E AUDIT

- Test scritto per valutazione basi cognitive
  MINIMUM PASSING SCORE
  (70% di almeno 100 domande)
- Test su simulatore
- Valutazione di una procedura completa su paziente
  CHECKLIST VS GLOBAL RATING SCALES

process includes the completion of a written test assessing the practitioner's cognitive level of the procedure. This written exam should be in conjunction with a visual exam to test the knowledge of normal *vs* abnormal vessels, and a skills test using simulation to test the practitioner's ability to perform the procedure to a satisfactory standard. The practitioner would then undertake observed procedures under the direct supervision of an experienced practitioner.

The two main approaches to rating technical performance are global rating scales and checklists. The goal of checklists is to guide behaviour by confirming routine. It has been argued that the global rating scales (Likert type scales) do not address procedural shortcomings. Global rating scales of competence have evolved[84] and a validated 24-item checklist using the Angoff method has been created to assess the competence of residents in CVAD insertion.[85] Because CVAD insertion is sequential and predictable, assessment of the procedure can be performed using a checklist, as each component of the skill can be assessed. Formal evaluation of competence is performed using instruments such as the Ottawa Global Rating Scale (GRS) and the Ottawa Crisis Resource Management (CRS) checklist which both demonstrate effectiveness in multiple domains.[86]

TRAINER/SUPERVISER/INSTRUCTOR

- Trainer certificato
- Proficiency del trainer: casistica elevata, bassa 'morbidity'
- Membro di IV team
- Sua precisa responsabilità deve essere quella di promuovere una cultura nella prevenzione delle CR-BSI

CONCLUSIONI

- Standardizzazione del percorso educativo
  - Didattica teorica minima definita
  - Laboratorio anatomico
  - Laboratorio su modello inanimato
  - Pratica su paziente supervisionata
  - Learning curve a distanza
  - Audit finale con metodo di valutazione oggettivo
- Docenti proficient in ambiente proficient

OPERATORE FORMATO

GRAZIE PER LA VOSTRA ATTENZIONE