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ESRA MEETING ANNUAL UPDATE

1 day, 1 programme, 3 cities

ROMA, 13 APRILE 2024

Responsabili scientifici:

Mario Bosco

Fabio Costa

Fabrizio Fattorini



SESSIONE 4 - ALR IN PARTICOLARI SITUAZIONI

Moderatori: F. Costa; R. Perna

- | | |
|---------------|------------------------------------------------------------------------|
| 14.30 - 15.00 | ALR nell'emergenza (ER, trauma, ICU) - live demo. <i>G. Pascarella</i> |
| 15.00 - 15.15 | Update in anestesia ostetrica. <i>M. Aversano</i> |
| 15.15 - 15.30 | Update sugli accessi vascolari. <i>A. Clemente</i> |



Infusion Therapy Standards of Practice

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9TH EDITION
REVISED 2024



INFUSION NURSES SOCIETY
SETTING THE STANDARD FOR INFUSION CARE®

One Edgewater Drive, Norwood, MA 02062
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19. ASEPTIC NON TOUCH TECHNIQUE (ANTT®)

Tecnica sterile secondo protocollo chirurgico ANTT



ANTT (definito dal National Institute for Health and Care Excellence come "uno specifico tipo di tecnica asettica con un quadro teorico e pratico unico», si basa su una **serie di principi e misure di prevenzione** che mettono al centro soprattutto due concetti fondamentali, ovvero la **protezione**:

- delle **Key Parts** (parti chiave): le parti critiche delle attrezzature che, se contaminate, hanno maggiori probabilità di causare infezioni;
- dei **Key Sites** (siti chiave): le ferite aperte e i siti di accesso dei dispositivi medici.

- **General Aseptic Field:** A decontaminated and disinfected surface (eg, procedure tray, cart, or single-use procedure kit/ barrier) used to promote, but not ensure, asepsis. Key-Parts placed onto this surface must be protected by Micro Critical Aseptic Fields (see below) when not in use.
- **Critical Aseptic Field:** A sterile drape/barrier. Used to ensure asepsis; all procedure equipment is placed upon the drape and managed collectively.
- **Micro Critical Aseptic Field:** A small protective sterile surface/housing (eg, sterile caps, covers, the inside of recently opened sterile equipment packaging) that protect Key-Parts individually.



➤ **Standard-ANTT:**

A combination of Standard Precautions and an approach of protecting Key-Parts and Key-Sites individually, using non-touch technique and Micro Critical Aseptic Fields within a General Aseptic Field. Used for clinical procedures where achieving asepsis and protecting Key-Parts and Key-Sites is straightforward and short in duration, such as VAD flushing and locking, administration set preparation and change, intravenous medication administration, and simple wound care. If Key-Parts or Key-Sites require direct touch, sterile gloves must be used.

➤ **Surgical-ANTT:**

Combination of Standard Precautions and an approach of protecting Key-Sites and Key-Parts collectively using a sterile drape(s) and barrier precautions. Used for clinically invasive procedures where achieving asepsis and protecting Key-Parts and Key-Sites is difficult and/or procedures are long in duration, such as surgery and central vascular access device insertion.

31. VASCULAR ACCESS SITE PREPARATION AND SKIN ANTISEPSIS

Practice Recommendations



- A. Remove excess hair at the insertion site if needed to facilitate application of VAD dressings. Use single-patient-use scissors or disposable-head surgical clippers; do not shave, as this may increase the risk for infection.^{1,2} (I)



- B. Evaluate patient history of any allergy or sensitivity to skin antiseptics (see Standard 52, *Catheter-Associated Skin Injury*).^{3,4} (I)

31. VASCULAR ACCESS SITE PREPARATION AND SKIN ANTISEPSIS



Quale soluzione ?

Quale modalità ?

31. VASCULAR ACCESS SITE PREPARATION AND SKIN ANTISEPSIS

Practice Recommendations

- C. Perform skin antisepsis using alcoholic chlorhexidine gluconate (CHG) as the preferred antiseptic solution.⁴⁻¹⁴ (I)
1. Use an alcoholic CHG solution containing at least 2% chlorhexidine gluconate.^{10,15} (I)



chlorhexidine



alcohol

2. Use an iodophor (eg, povidone-iodine) or 70% alcohol if there is a contraindication to chlorhexidine solution.^{4,7,11,12} (I)

3. Consider use of aqueous chlorhexidine if there is a contraindication to alcohol-based chlorhexidine (see Standard 52, *Catheter-Associated Skin Injury*).¹⁴ (I)

31. VASCULAR ACCESS SITE PREPARATION AND SKIN ANTISEPSIS

Practice Recommendations



D. Use a single-use applicator containing an antiseptic solution.^{4,8,21} (V)



Ministero della Salute

DIREZIONE GENERALE DEI DISPOSITIVI MEDICI E DEL SERVIZIO
FARMACEUTICO
UFFICIO 8 – BIOCIDI E COSMETICI

Roma, 29/03/2023

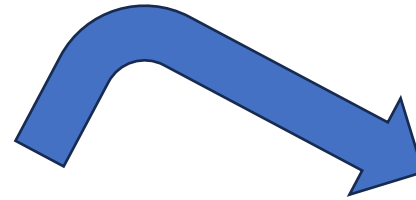
31. VASCULAR ACCESS SITE PREPARATION AND SKIN ANTISEPSIS

An official website of the European Union How do you know? ▾

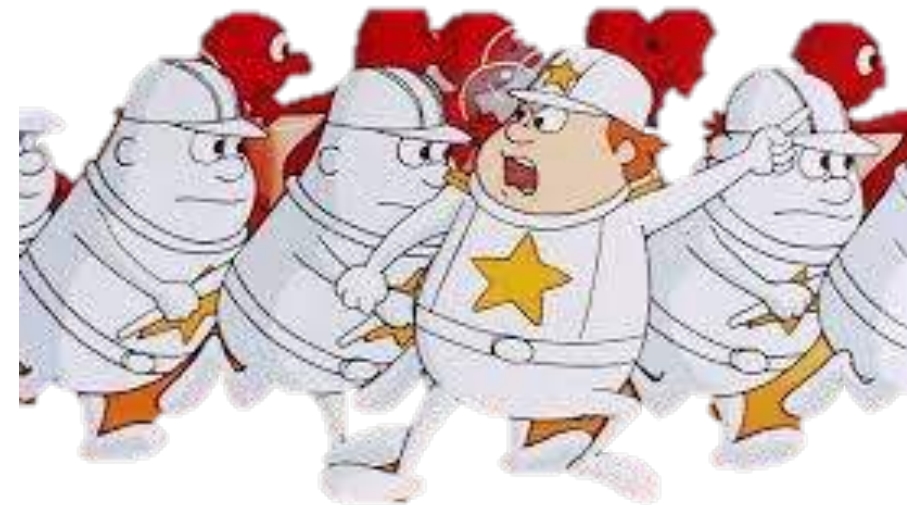


Publications Office of the European
Union

- *Guidance on the Biocidal Products Regulation* -
i prodotti disinfettanti per cute integra da applicarsi prima di
un trattamento medico **devono considerarsi medicinali**;



PRODOTTI BIOCIDI



25. VASCULAR ACCESS DEVICE PLANNING AND SITE SELECTION



25.3 The least invasive VAD with the smallest outer diameter and fewest number of lumens needed to complete the duration and prescribed therapy is selected.

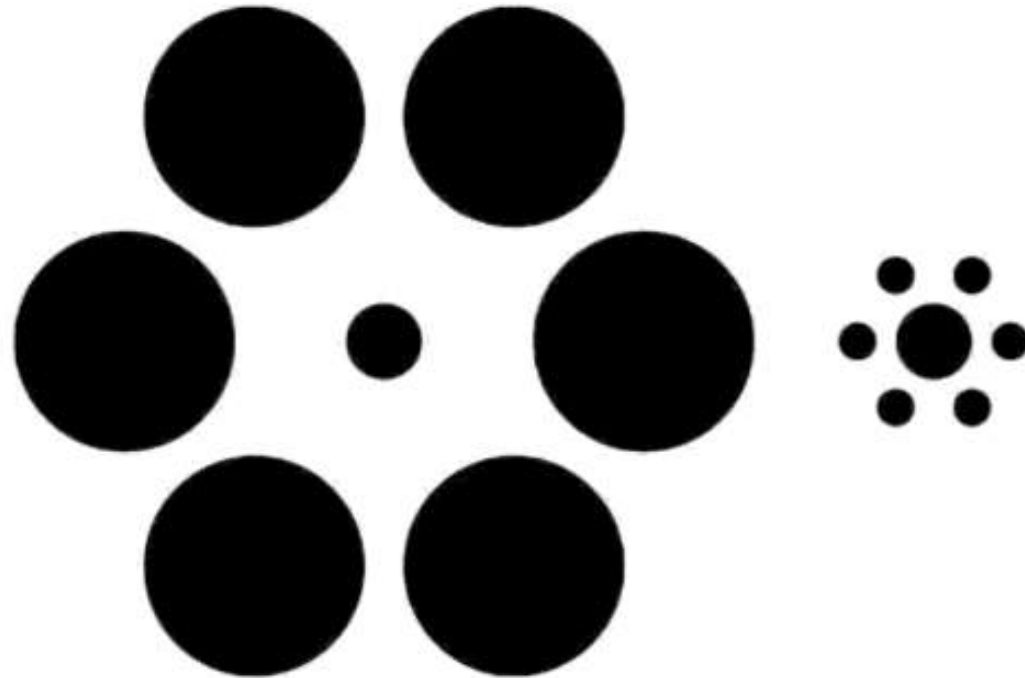
25.4 Site selection is chosen based on vessel health and preservation strategies (thorough vessel assessment), the planned therapy, patient comfort and preference, and VAD type, beginning at the most distally appropriate site.



catetere 3 Fr:	vena 9 Fr (3 mm)
catetere 4 Fr:	vena 12 Fr (4 mm)
catetere 5 Fr:	vena 15 Fr (5 mm)



Neural Correlate Society



Classic (Static) Ebbinghaus

The center circle on the right appears larger, but both are actually the same size.

~~Illusione di Ebbinghaus~~

5 Fr Doppio Lume
Flusso massimo²
7 ml/sec



14%
diametro esterno più piccolo

98%
area del lume garantita

4 Fr Doppio Lume
Flusso massimo³
6 ml/sec



3 Fr Singolo Lume (SL)
6 mL/sec flusso massimo³



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Consensus paper

European recommendations on the proper indication and use of peripheral venous access devices (the ERPIUP consensus): A WoCoVA project

Mauro Pittiruti¹ , Ton Van Boxtel² , Giancarlo Scoppettuolo¹, Peter Carr³, Evangelos Konstantinou⁴, Gloria Ortiz Miluy⁵, Massimo Lamperti⁶, Godelieve Alice Goossens⁷, Liz Simcock⁸, Christian Dupont⁹, Sheila Inwood¹⁰, Sergio Bertoglio¹¹ , Jackie Nicholson¹², Fulvio Pinelli¹³  and Gilda Pepe¹

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ERPIUP **E**uropean **R**ecommendations for **P**roper **I**ndication and **U**se of **P**eripheral venous access

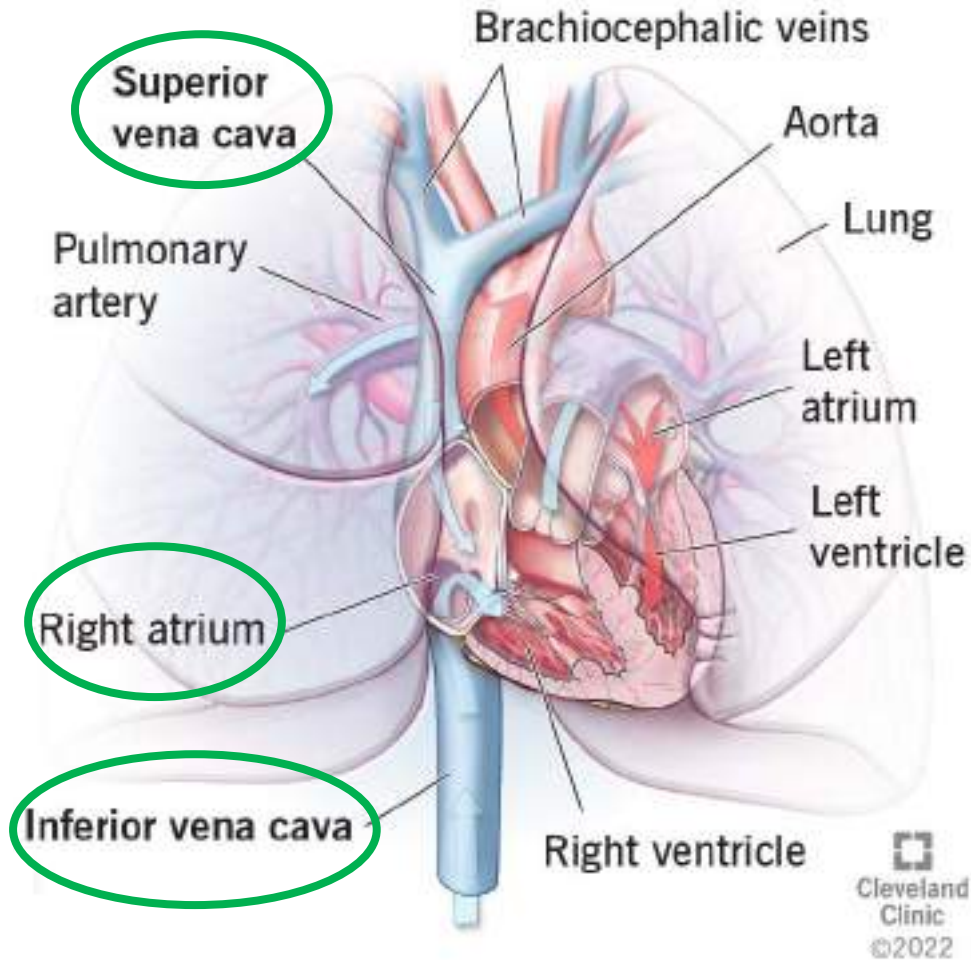
Systematic recommendations for: indication, insertion, maintenance, prevention and treatment of complications, and removal.



ADRIANO CELENTANO - CLAUDIA MORI

ER PIU'
STORIA D'AMORE e di COLTELLO

Section I – Definition and classification



On the basis of their length:

- (a) **short** peripheral catheters (SPC) (<6 cm):
“simple” or “integrated”
- (b) **long** peripheral catheters (LPC) (6–15 cm);
- (c) **midline** or “midclavicular” (MC) (>15 cm).



Section 2 – Indications

PVADs indicated in:

- short to medium term infusion of ***peripherally compatible solutions***
- apheresis/ultrafiltration, only in specific situations and with specific devices.
 - solutions with pH 5–9
 - drugs with osmolarity <600 mOsm/L
 - parenteral nutrition with osmolarity <800–850 mOsm/L
 - any drug or solution not vesicant (potential endothelial damage)

Vesicant drugs -> Fast (<30 min) ?!?

Osmolarity -> Slow ?!? Diluted ?!?

Section 2 – Indications

Expected **duration** of treatment:

- **SPCs** are appropriate for emergency and/or short duration access (**24–48 h**)
- **“integrated” SPCs** -> non-emergency access, when expected duration is **2–7 days**
- **LPCs** -> DIVA patients or expected duration = **1–4 wks**
- **MCs** -> expected duration **> 4 wks**



Section 3 – Insertion

- Prepare the skin with 2% chlorhexidine in 70% isopropyl alcohol using 30 s friction and allowing 30s to dry
- insert at the forearm or upper arm, avoiding areas of flexion (dislocation), avoiding ankle (thrombophlebitis)



- If insertion in hand, external jugular vein, or lower limb is unavoidable (as in *emergency*), **remove the PVAD within 24–48**

Section 4 – Maintenance

Minimize the risk of infection using the following strategies:

- *use 2% chlorhexidine in alcohol to disinfect needle-free connectors and to clean the exit site if dressing change is required*
- *use semipermeable transparent dressings*
- *use needle-free connectors and disinfecting caps*
- *adopt a policy of visual inspection on each shift and every time the device is accessed.*

Minimize the risk of occlusion using the following strategies:

- *use normal saline for flushing and locking the device*
- *consider possible drug incompatibilities.*

Minimize the risk of dislodgment using the following strategies:

- *place PVADs in the forearm or upper arm, avoiding areas of flexion*
- *if insertion is in the hand, the external jugular vein, or the lower limb is unavoidable, remove within 24–48h*
- *use a sutureless device to secure the PVAD*
- *use a semipermeable transparent dressing*
- *consider the use of cyanoacrylate glue.*



Risk

Minimize the risk of phlebitis/thrombosis using the following strategies:

- *avoid micro-movements of the device*
- *use the PVAD only for peripherally compatible infusions*
- *adopt a policy of visual inspection on each shift and every time the device is accessed.*

Section 5 – Removal

- No longer required
- No longer appropriate
- Device failure
- Inserted in emergency conditions
- Request of the patient



Section 5 – Removal

- No longer required
- No longer appropriate
- **Device failure**
- Inserted in emergency conditions
- Request of the patient



- ✓ Dislodgment,
- ✓ Phlebitis,
- ✓ Thrombosis,
- ✓ Occlusion,
- ✓ Infection,
- ✓ Infiltration,
- ✓ Extravasation,
- ✓ Fever x use



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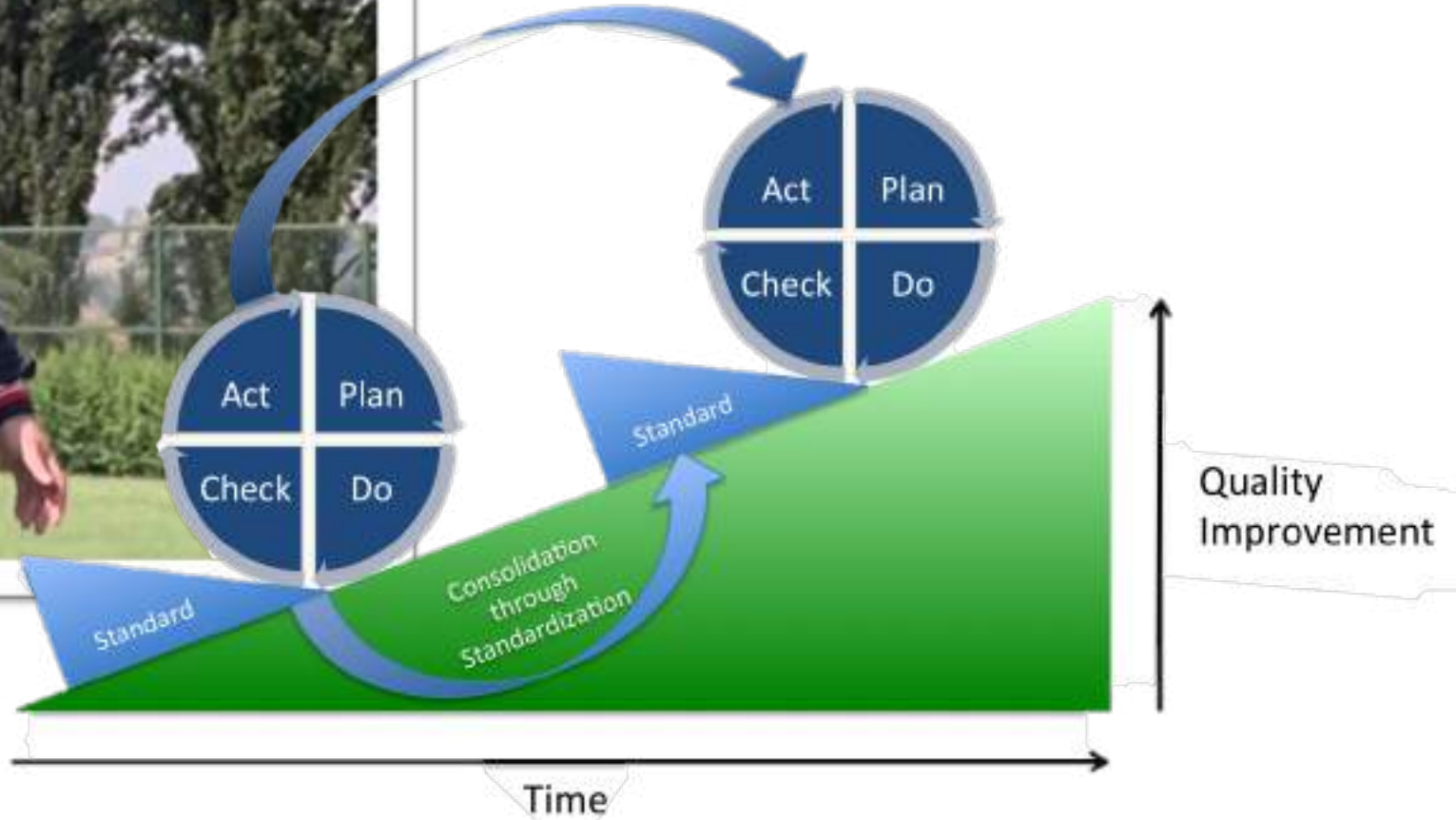
LIVE BEAUTIFUL

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Ciclo di Deming



**SIGNATURE
SOLUTION™**

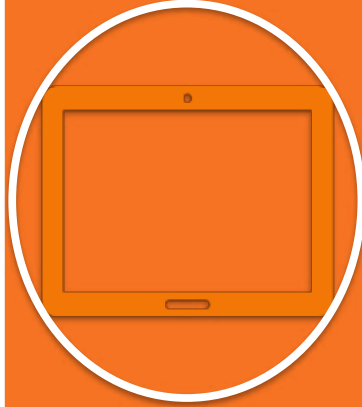
OBIETTIVO

Metodologia collaudata per la
valutazione qualitativa di un processo.

- Fornire strumenti per il monitoraggio delle pratiche cliniche rispetto ai protocolli esistenti
- Identificare eventuali lacune nella conformità e raccomandare un piano d'azione per correggere
- Supportare l'educazione clinica per migliorare le competenze infermieristiche



Presentazione
del progetto



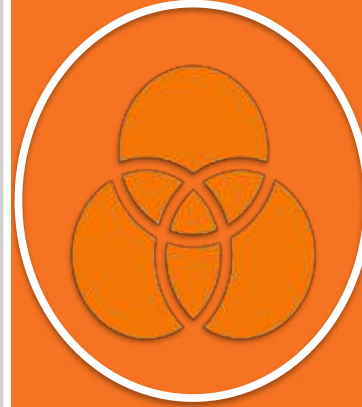
Osservazione
e raccolta dati



Elaborazione
dati e
generazione di
un report



Azioni di
miglioramento



Seconda
raccolta dati e
benchmarking

SIGNATURE SOLUTION™

Il 35 - 50% degli accessi vascolari periferici falliscono precocemente, soprattutto a causa di complicanze evitabili¹



OBIETTIVI



1
Presentazione del Progetto a:

- **Direzione Sanitaria**
- **CIO**
- **Risk Management**
- **Responsabile Unità Operativa**

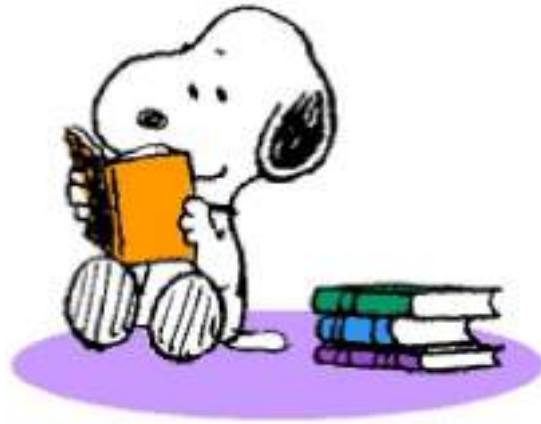
2
Condivisione e scelta dei reparti in cui effettuare le osservazioni

3
Firma della lettera di **accettazione**

4
Presentazione del progetto ai **coordinatori** e successivamente a **medici** e **infermieri**

- Efficientare il processo
- Migliorare outcome clinico
- Aumentare la costo-efficacia

CURIOSITÀ PER
APPROFONDIRE



DESIDERIO
DI METTERE
IN PRATICA



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Grazie!

