



UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

The Safeguarding of The Vascular Heritage and Management of Venous Accesses

2526-2-I0101D919

Aims

The elective course, "Safeguarding the Vascular Patrimony and Management of Venous Accesses," aims to provide students in the Bachelor of Science in Nursing program with advanced knowledge and practical skills for the selection, placement and multidisciplinary management of venous accesses in the short, medium and long term, in order to safeguard the patient's vascular patrimony, optimize the delivery of care and significantly improve the patient's quality of life.

The specific objectives, formulated in accordance with the Dublin Descriptors, are as follows:

1. Knowledge and Understanding
Know the indications, types, and anatomic-physiologic principles of short-, medium-, and long-term vascular accesses.
2. Ability to Apply Knowledge and Understanding
Apply best practices for the selection, placement, management, and prevention of complications of venous accesses, with the goal of preserving the patient's vascular heritage.
3. Autonomy of Judgment
Critically evaluate and make autonomous decisions about venous access management, collaborating effectively in the multidisciplinary team to optimize care strategies.
4. Communication Skills
Communicate clearly and effectively with patients, family members, and other health care professionals regarding vascular management and safeguarding.
5. Learning Skills
Develop independent learning about scientific evidence and technological innovations in vascular access management to improve clinical practice.

Contents

The course aims to deepen the knowledge related to the indications to the positioning and the subsequent management of vascular access in the short, medium and long term, with a view to multidisciplinary management aimed at improving not only the delivery of care but also the quality of life.

The increase of the average age and the situations of chronicity that more and more often must be managed in the persons requesting intra and extra-hospital assistance, requires a proactive approach aimed at safeguarding the venous heritage. The technological evolution and the new methods of implantation of intravascular devices have, in recent years, changed the possibilities of intervention in favor of greater tolerability on the part of the person and less aggression towards the venous heritage.

Detailed program

Advanced venous accesses for intrahospital and extra hospital use: the new panorama and new responsibilities for the Nurse.

The proactive approach to intravenous therapy needs.

Knowledge of criteria and assessment scales of the venous heritage

The ordinary management of vascular access in the short, medium and long term.

Monitoring and surveillance of complications: MARS (Medical Adhesive Related Skin Injuries), occlusion, infection, venous thrombosis safeguarding venous heritage as a new element of care processes.

Chronicity and the DIVA phenomenon (Difficult Intra Venous Access).

Central and peripheral venous accesses: indications and areas of use (Short peripheral agocannula; long peripheral cannula; Midline; Picc (peripherally central inserted catheter); CICC (Centrally Inserted Central Catheter) not tunneled; CICC tunnellized; FICC (Femorally Inserted Central Catheter) not tunneled; tunneled FICC).

The DAV Expert as an aid in catheter selection.

The principles of positioning advanced vascular accesses.

Catheter stabilization and protection (transparent polyurethane dressings and breathability index meaning; sutureless devices, subcutaneous anchorage system, cyanoacrylate glue)

The tunneling of catheters and the importance of exit site.

Port protectors: a new strategy for infection control.

The related catheter complications

Definition and diagnosis of CLABSI (Central Line Association Blood Stream Infection) and CRBSI (Catheter Related Blood Stream Infection) and role of the Nurse in the diagnostic process.

Prevention of catheter related infections.

Deep vein thrombosis and fibroblastic sheath: differences, prevention and early identification.

Catheter occlusion: prevention and solutions.

Prerequisites

Enrolment in the 2nd and 3rd year of the nursing degree course

Teaching form

The lesson takes place in the dispensing mode in presence through front lesson and Skill station on management and dressing procedures

Textbook and teaching resource

Badon P., Giusti G. (2022)- Assistenza infermieristica in area critica e in emergenza.,CEA

Brescia, F., Pittiruti, M., Spencer, T. R., & Dawson, R. B. (2024). The SIP protocol update: Eight strategies, incorporating Rapid Peripheral Vein Assessment (RaPeVA), to minimize complications associated with peripherally inserted central catheter insertion. *The journal of vascular access*, 25 (1), 5–13.

Gorski, L. A., Hadaway, L., Hagle, M. E., Broadhurst, D., Clare, S., Kleidon, T., Meyer, B. M., Nickel, B., Rowley, S., Sharpe, E., & Alexander, M. (2021). *Infusion Therapy Standards of Practice*, 8th Edition. *Journal of infusion nursing: the official publication of the Infusion Nurses Society*, 44(1S Suppl 1), S1–S224.

Ostroff, M. D., Moureau, N., & Pittiruti, M. (2023). Rapid Assessment of Vascular Exit Site and Tunneling Options (RAVESTO): A new decision tool in the management of the complex vascular access patients. *The journal of vascular access*, 24 (2), 311–317

Pinelli, F., Pittiruti, M., Van Boxtel, T., Barone, G., Biffi, R., Capozzoli, G., Crocoli, A., Elli, S., Elisei, D., Fabiani, A., Garrino, C., Graziano, U., Montagnani, L., Prato, A. P., Scoppettuolo, G., Zadra, N., Zanaboni, C., Zerla, P., Konstantinou, E., Jones, M., ... Pepe, G. (2021). GAVeCeLT-WoCoVA Consensus on subcutaneously anchored securement devices for the securement of venous catheters: Current evidence and recommendations for future research. *The journal of vascular access*, 22(5), 716–725.

Raccomandazioni GaVeCeLT 2021 per l'indicazione, l'impianto e la gestione dei dispositivi per accesso venoso.
<https://gavecelt.it/nuovo/sites/default/files/uploads/Raccomandazioni%20GAVeCeLT%202021%20-%20v.2.0.pdf>

Semester

Second semester

Assessment method

Frequency

Office hours

By appointment

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING | QUALITY EDUCATION
