

PICC IN CURE PALLIATIVE

M. Ricciuti

U.O.C. Cure palliative e Hospice

Azienda Ospedaliera S. Carlo Potenza

What is Palliative Care?

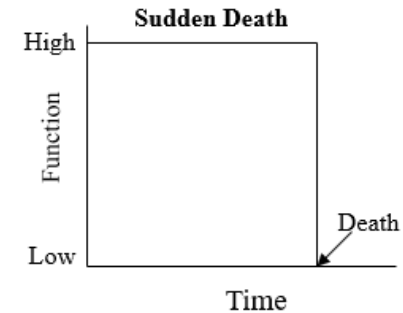
Palliative care is a philosophy of care that aims to help individuals and families to:

- Address physical, psychological, social, spiritual and practical issues
- Prepare for and manage end of life choices and the dying process
- Cope with loss and grief
- Treat active issues and manage symptoms
- Prevent new issues from occurring
- Promote opportunities for meaningful and valuable experiences

Need of palliative care

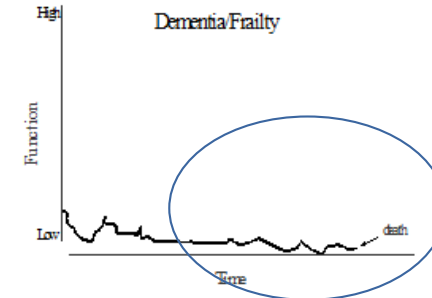
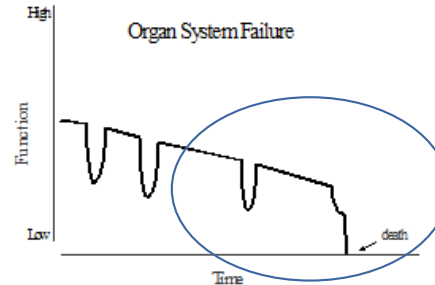
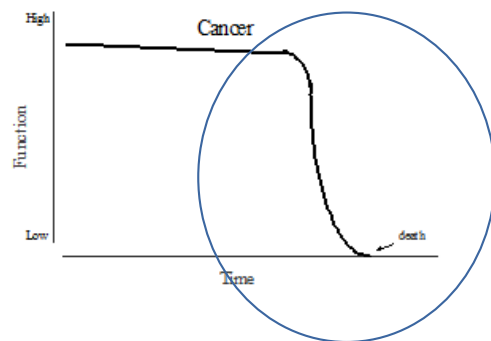
1900

- Average age of death 46 years
- Usually a rapid death
- Leading causes: infectious disease, childbirth, accidents



2015

- Average age of death 85
- Only 5% die sudden deaths, 95% decline over time
- 2-4 years of decline



Dr. Natalie Kondor

Palliative Care – Not Just End of Life Care



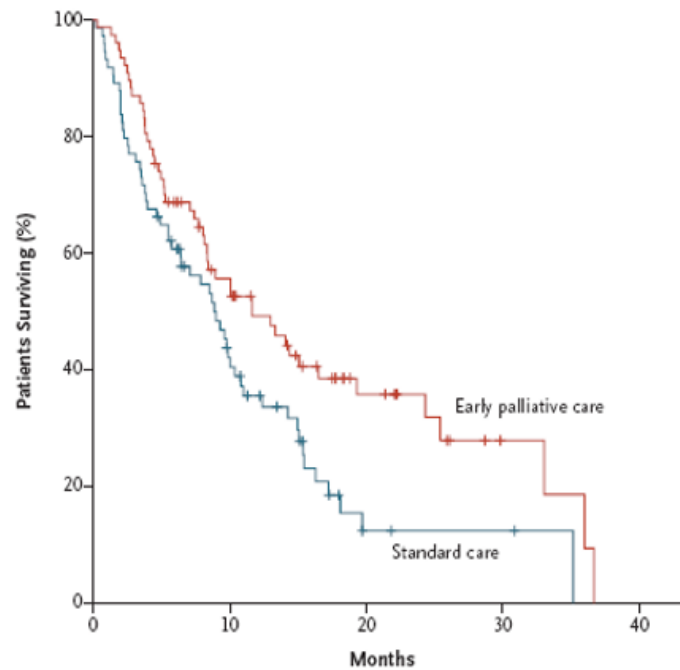
Benefits of Earlier and Integrated Palliative Care

Leads to better outcomes for Patients & Families:

- Reduced symptom burden
- Less anxiety and depression
- Less caregiver burden
- Better quality of life
- Less aggressive treatments
- More appropriate referral to and use of hospice
- Lower health care costs

Smith et al., 2012; Temel et al., 2010; Bakitas et al., 2009;
Myers et al., 2011; Zimmerman et al 2013

Benefits of Earlier and Integrated Palliative Care - Improved Survival



Longer and better survival

- ✓ Better understanding of prognosis
- ✓ Less IV chemo in last 60 days
- ✓ Less aggressive end of life care
- ✓ More and longer use of hospice
- ✓ **\$2000 per person savings to insurers and society**

Temel J, et al. NEJM 2010; Temel J, et al, JCO 2011; Greer, et al. Proc ASCO 2012

Safety, efficacy, and patient-perceived satisfaction of peripherally inserted central catheters in terminally ill cancer patients: a prospective multicenter observational study

- **Oral administration of medication and nutrition is often difficult in terminally ill cancer patients** because of progressive difficulties in swallowing, nausea and vomiting, intestinal obstruction, and consciousness disturbance.
- Although the subcutaneous route is an option for parenteral access, a number of terminal cancer patients and their **caregivers preferred the intravenous route rather than the subcutaneous route**; thus, the IV route is widely used in clinical practice.
- However, these terminally ill cancer patients have **limited or no peripheral venous access**

Patients' and Relatives' Perceptions About Intravenous and Subcutaneous Hydration

- The intravenous route was considered able to improve the clinical condition and to have a positive psychological meaning, representing an acceptable burden

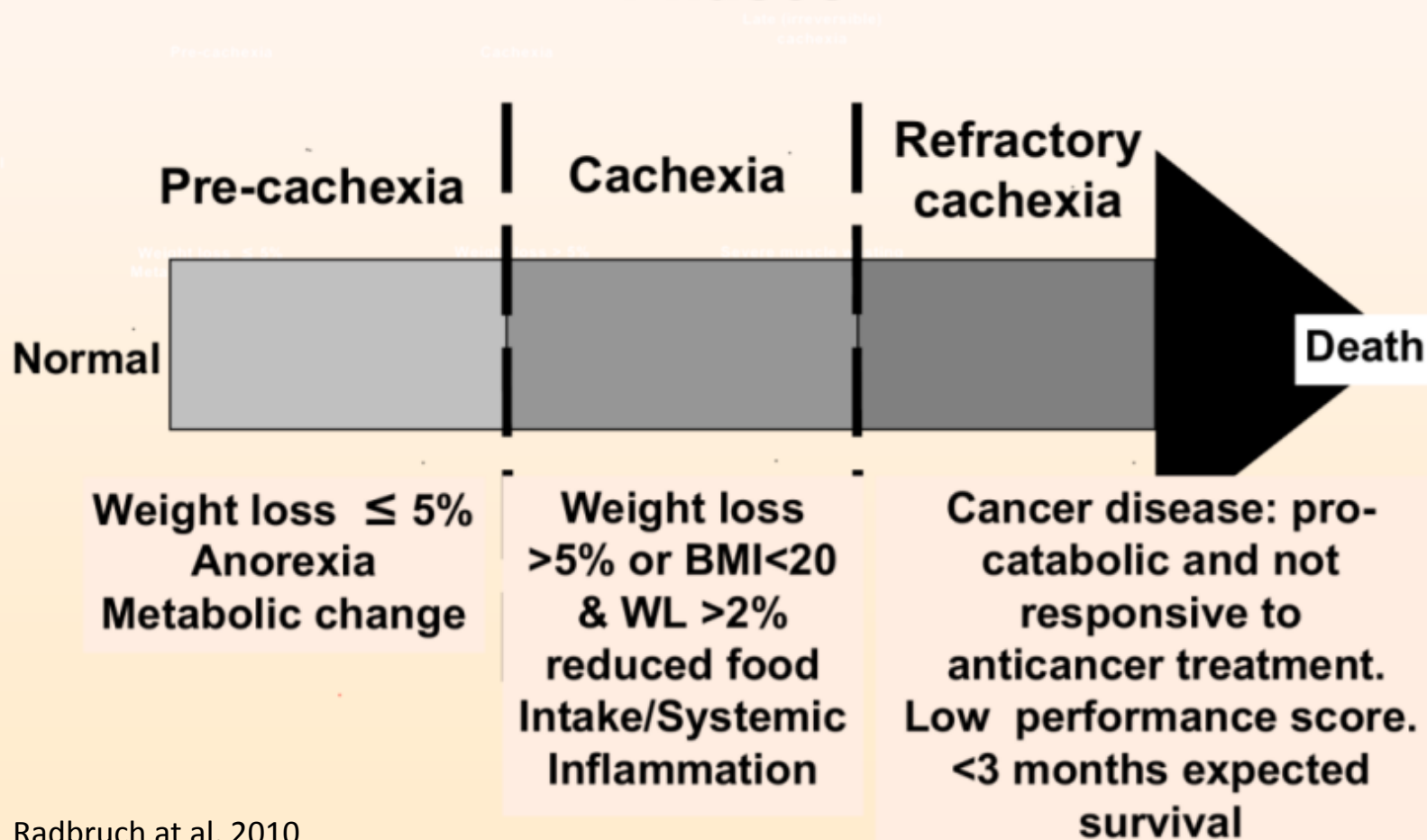


Opioid administration routes

SINTOMI	orale	sub linguale	rettale	sotto cuta- nea*	intra- venosa	transder- mica	spinale
VOMITO	-	++	++	++	++	++	++
OCCLUSIONE INTESTINALE	-	++	++	++	++	++	++
DISFAGIA	-	++	++	++	++	++	++
DEFICIT COGNITIVI	-	-	-	++	++	++	-
DIARREA	-	++	-	++	++	++	++
EMORROIDI, FISSURAZIONI ANALI	++	++	-	++	++	++	++
DISTURBI DELLA COAGULAZIONE	++	++	++	-	++	++	-
IMMUNO- DEPRESSIONE SEVERA	++	++	++	-	++	++	-
EDEMA GENERALIZZATO	++	++	++	-	++	-	++
FREQUENTE CAMBIO DI DOSAGGIO	++ **	++	-	++ °	++ °	-	+
ADATTAMENTO INIZIALE	++ **	++	+	++ °	++ °	-	-
BREAKTHROUGH PAIN (DEI)	++ **	++	++	++ °	++ °	-	-

+ può essere indicata ++ indicata - controindicata * ISCC (infusione sottocutanea continua) ** solo formulazione pronto rilascio ° PCA (analgesia controllata dal paziente)

New Classification of Cancer Cachexia 2010: Phases



Radbruch et al, 2010

Peripherally inserted central catheters in non-hospitalized cancer patients: 5-year results of a prospective study

- According to our regional policy, an oncologic patient should receive HPN when meeting all the following criteria: (1) proven **failure** to meet nutrition requirements by the oral or enteral route, with impending risk of death due to malnutrition; (2) **life expectancy** >2 months; (3) **Karnofsky** performance status ≥ 50 ; (4) control or absence of pain; (5) absence of severe organ dysfunctions; (6) written **informed consent** confirming that the patient will accept this modality of nutrition support; (7) approval by the physician responsible for HPN, by the oncologist, and by the general practitioner; (8) presence of **environmental conditions compatible** with HPN; (9) availability of a dedicated in-home caregiver; (10) and availability of a nursing team dedicated to the patient home care, as provided by the Regional Public Health Service

Cure di supporto in Oncologia

Terapie farmacologiche intravenose

- Trasfusione di sangue e altri emoderivati
- Infusione di: immunoglobuline, albumina umana, proteine plasmatiche umane, antibiotici, antifungini e antivirali, ferro, elettroliti, analgesici, diuretici, steroidi; octreotide; H2-antagonisti, glutazione, antiemetici, anti-istaminici
- Infusione di bisfosfonati/denosumab
- Idratazione post chemioterapia e per danno renale acuto o cronico
- Idratazione intravenosa, +/- elettroliti, +/- multivitaminici, proteine, lipidi, in pazienti con iponutrizione o con tossicità da RT o CT (es. diarrea, nausea, vomito, mucosite oro-faringea).

A. ANTONUZZO P. BOSSI A. FABI C. RIPAMONTI D. SANTINI

Manuale di cure di supporto in oncologia 2015

Terapie infusionali più frequenti in cure palliative

- Infusioni morfina (elastomeri, pompe-siringhe o elettroniche, flebo con dosi-flow)
- Sedazioni palliative (notturne, intermittenti, continue terminali)
- Infusioni per occlusioni intestinali (morfina, aloperidolo, ioscina)
- Terapie antiedema (mannitolo, cortisone)
- Terapie antibiotiche
- NPT
- Idratazione
- Somministrazione di farmaci <al bisogno> in tempi rapidi e con pronto effetto: morfina, FANS, antiemetici, sedativi, antifebbrili, antiepilettici, cortisonici, etc.
- Altri usi del catetere venoso: prelievi, emocolture...



**PALLIATIVE
CARE:**

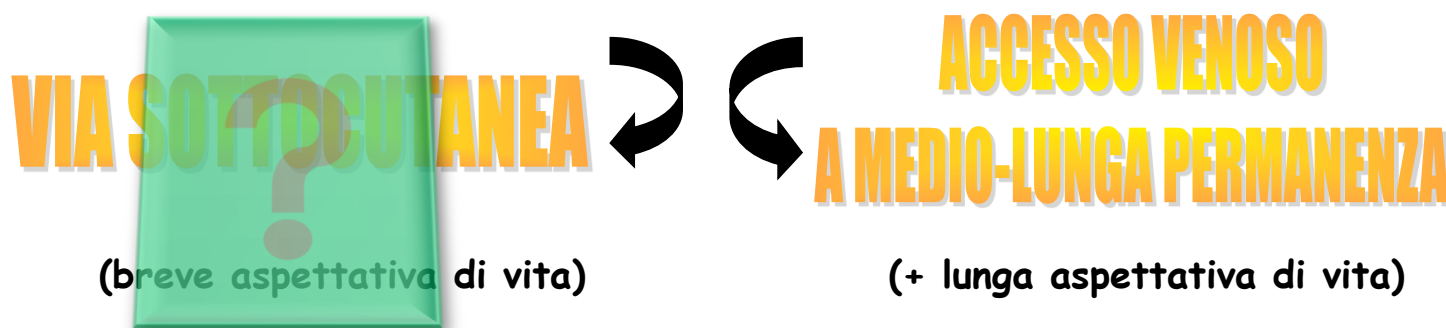
LOW TECH

HIGHT TOUCH



ACCESSI VENOSI IN CURE PALLIATIVE

- Pazienti già portatori di accessi venosi a lunga permanenza (PORT- cateteri tunnellizzati- PICC- Midline)
- Pazienti sprovvisti di accessi venosi a lunga permanenza: quale scelta?



Quale accesso venoso in Cure palliative?

- **Aghicannule periferiche:** difficoltà di reperimento delle vene, breve durata e necessità di ripetuti incannulamenti, non adatti per NPT protratte, né per prelievi
- **Port e Cateteri tunnellizzati:** rischi della puntura venosa centrale in pz. già sofferenti e impauriti, *presidi sproporzionati* da impiantare in fase terminale
- **Picc e Midline:** idonei per medio periodo, nessun rischio e gravosità per il pz., incannulamento bedside, idonei anche per NPT o chemioterapie palliative, utili anche per prelievi e trasfusioni.

PICC E MIDLINE IN HOSPICE

PRO

- **Manovre di incannulamento sostanzialmente prive di rischi**
- **Manovre di incannulamento bedside**
- **Buona accettabilità da parte del paziente**
- **Presidio proporzionato, anche eticamente, alle cure palliative**
- **Multiuso: prelievi, infusioni, trasfusioni, NPT, iniezione farmaci, infusioni continue (antalgiche, sedative), chemioterapie palliative, etc.**

CONTRO

- **Necessità di training specifico, per l'ecoguida e il monitoraggio ecg intracavitario (personale formato per impianto bedside o a domicilio)**
- **Necessità della disponibilità di un ecografo e del monitoraggio ecg**
- **Costo più elevato dei presidi (anche se in diminuzione)**

PICC O MIDLINE IN HOSPICE?

MIDLINE

- Inserimento più veloce, solitamente senza intoppi e necessità di misurazioni, utile nelle situazioni più critiche in cui bisogna essere <veloci>
- 1° scelta se per periodi + brevi e non è prevista NPT o chemioterapia palliativa

PICC

- Utile se previsto tempo di permanenza più lungo
- Necessario se prevista NPT iperosmolare, o farmaci a pH acido o basico, o chemioterapia palliativa
- Utile se prevista la dimissione a domicilio del paziente o il trasferimento in altro regime di ricovero

Quality of Life, Pain Perception, and Distress Correlated
to Ultrasound-Guided Peripherally Inserted Central Venous Catheters
in Palliative Care Patients in a Home or Hospice Setting

- The indication for positioning the PICCs was **hydration and/or parenteral nutrition** in 37 cases, **drug infusion** in 38 cases, and **blood sampling** in 13 cases
- The time needed to insert **PICC**, measured from the preparation of the sterilized operative area until the application of stat-lock dressing, was between 13 and 22 minutes (median time **16 minutes**). Less time was needed to position the **Midline** catheters (range 8-33 minutes; median **11 minutes**). No differences in time were seen in relation to hospice vs. home setting.

Quality of Life, Pain Perception, and Distress Correlated to Ultrasound-Guided Peripherally Inserted Central Venous Catheters in Palliative Care Patients in a Home or Hospice Setting

Perception of Distress and Pain During PICC Positioning and at Follow-Up		
Questionnaire Items	<i>n</i>	% (95% CI)
Was the PICC positioning a distressing experience?		
No	40	83.3 (72.8–93.9)
A little	6	12.5 (3.1–21.9)
Quite a lot	1	2.1 (0.0–6.1)
Very much	1	2.1 (0.0–6.1)
Did you experience pain during PICC positioning?		
No	37	77.1 (65.2–89.0)
A little	8	16.7 (6.1–27.2)
Quite a lot	3	6.3 (0.0–13.1)
Very much	0	0.0 (—)
Distress at follow-up		
No	41	85.4 (75.4–95.4)
A little	7	14.6 (4.6–24.6)
Quite a lot	0	0.0 (—)
Very much	0	0.0 (—)
Pain at follow-up		
No	45	93.8 (86.9–100)
A little	2	4.2 (0.0–9.8)
Quite a lot	1	2.1 (0.0–6.1)
Very much	0	0.0 (—)

Patient-Reported Usefulness of Peripherally Inserted Central Venous Catheters in Terminally Ill Cancer Patients

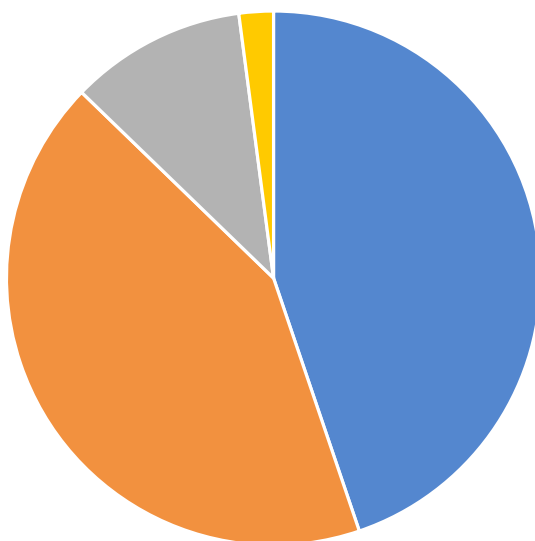
Table 1
Patient-Reported Procedure-Related Distress, Comfort, and Convenience after PICC Placement

	% (n)
Procedure-related distress	
Not distressing	68 (17)
Slightly distressing	8 (2)
Distressing	24 (6)
Patient-perceived changes in comfort and convenience	
Comfort	
More comfortable	94 (16)
No change	6 (1)
A little discomfort	0 (0)
Uncomfortable	0 (0)
Convenience	
More convenient	94 (16)
No change	6 (1)
A little inconvenient	0 (0)
Inconvenient	0 (0)

The average time of the procedure, defined as the period from when the patient's skin was cleaned with a disinfectant solution to when the catheter was fixed with sutures, was 23 ± 7.9 minutes.

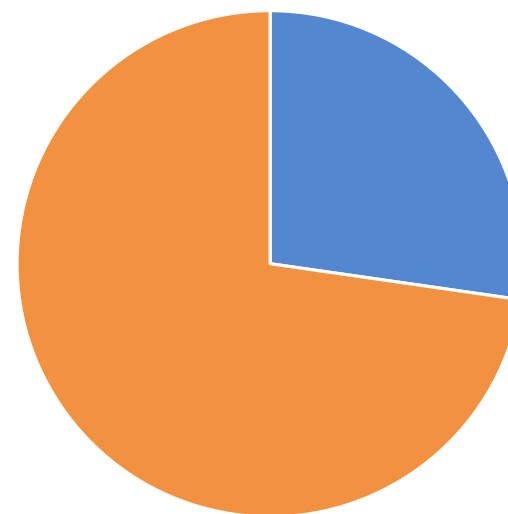
Vascular team S. Carlo Hospice

1105 IMPIANTI GEN.- NOV. 2017



■ PICC ■ MIDLINE ■ PORT ■ CICC

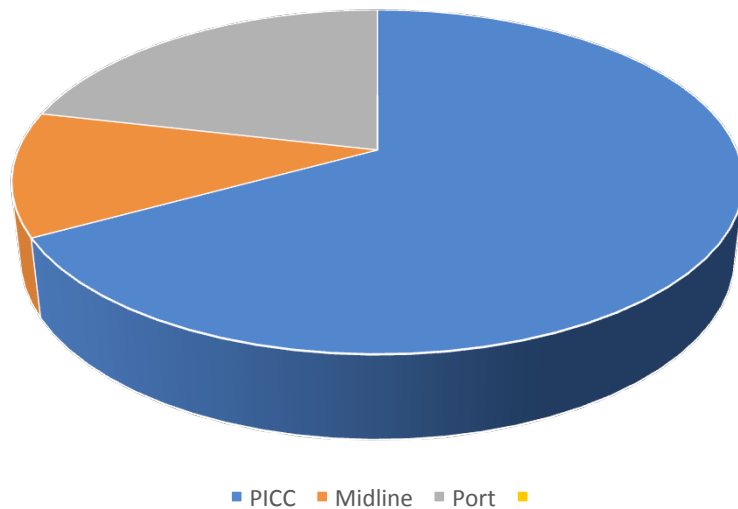
88 IMPIANTI HOSPICE / 250 ricoveri
gen.- nov 2017



■ PICC ■ MIDLINE

Vascular team S. Carlo Hospice

Pazienti già portatori di CV al momento
del ricovero in Hospice
(105 in ricovero ordinario)



- La maggioranza dei pazienti ricoverati in Hospice ha un accesso venoso a medio-lunga permanenza
- Quando non già presente, il device viene impiantato il giorno del ricovero, o, al massimo, il giorno successivo
- In tal modo vengono evitate sistematicamente punture ripetute ai pazienti

Vascular team S. Carlo Hospice

DEVICE

- Power PICC 4 Fr. monolume
- Midline 4 Fr. monolume
- Power PICC 5 Fr. Bilume
- PICC Port 5 Fr. camera in titanio
- Port 6.6 Fr. camera in titanio
- Materiale del catetere: poliuretano

PROCEDURA

- Ecoguida
- Monitoraggio ecg intracavitario (sistema Nautilus)
- Tunnellizzazione
- Sutureless device (Statlock o Securacath)
- Colla cutanea istoacrilica
- Medicazioni trasparenti semipermeabili con clorexidina
- Needlefree connector
- Port protector