Continuity of care in the management of pressure lesions: An information leaflet for hospital-territory collaboration

Margherita Farí,[1] Maurizio Mercuri,[2] Alessandro Scalise[3]

[1]Faculty of Medicine and Surgery, Marche Polytechnic University, Nursing; [2]Faculty of Medicine and Surgery, Marche Polytechnic University, Nursing; [3]Clinic of Plastic and Reconstructive Surgery, Marche Polytechnic University, Ancona, Italy

ABSTRACT

The project consists in the creation of a leaflet in which are explained the main information regarding the management of patients with Pressure Lesions (PL). The concepts explained underlie the course of treatment and are addressed to inexperienced readers. Considering the public needs to assist this kind of patients, it was considered necessary to create something that improves the know-how of an informal caregiver, who is frequently the one who dress the medication. The goal is to give an easy, and safe, learning method for citizens who take care of the patient management and of his medications; always considering the support of specialists. The targets of the project are: evaluate and visualize the major aspects of PL (definition, prevention, classification and treatment); the importance of the continuity of care for this kind of patient; to inform the citizen about pressure injuries (which daily measures have to be taken to prevent the condition to getting worse or stationary) and, in the end, the actual treatment through teaching advanced dressing and their application in different situations (explained in a simplified way because it's a vast argument which represent a sub-specialty in nursing and the aim is to give fundamental and useful information). For the creation of the brochure the scientific literature was analyzed and two guidelines, eleven articles and two texts have been consulted.

INTRODUCTION

Due to the increase in favoring factors, Pressure Injuries (PI) are a very widespread phenomenon. Making a general analysis we can say that patients with pressure injuries are part of the multitude of subjects In fact, it has been seen that chronic diseases are more frequent in adulthood, in the ranges between 55-59 years: 54.1% of subjects suffer from a chronic condition, as well as with increasing age we also notice the increase in the percentage, over 75 the percentage increases by 86.9% (see Figure 1).[1]

The characteristic of PI is that, in addition to being part of chronic pathologies, they are very often generated by chronic conditions that involve the subject's sedentary lifestyle and a non-optimal nutritional state, both conditions are very influential in the genesis of these particular lesions.

Slow-progressing pathologies are no longer treated until resolution in hospital for the reasons related to the best healing modality for the patient and for the cost it would entail for the company.

It is documented that a prolonged, sometimes unnecessary, hospitalization leads to the worsening of the psycho-physical conditions of the patient, who has to live his illness in an unknown environment and away from family affections.

It is preferable to face a path with the patient that first of all includes the activation of the territory and of all those that are considered home care. These in fact give the possibility of providing home services that contribute to maintaining the highest level of well-being.

Another positive aspect of treating the patient in structures and places other than hospitals is the increase in coping by the subject himself.

The term indicates "the set of adaptive psychological mechanisms implemented by an individual to deal with emotional and interpersonal problems, in order to manage, reduce or tolerate stress and conflict".[2]

On the other hand, we also have an economic advan-

Correspondence: Margherita Farí, Facoltà di Medicina e Chirurgia, Università Politecnica delle Marche. Via Tronto 10, Ancona, Italy
E-mail: margherita_fari@libero.it

Key words: Wound care; advanced dressing; pressure-related injuries; wound bad preparation; caregiver.

Conflict of interest: The authors declare no conflict of interest.

Availability of data and materials: The data used to support the findings of this study are available from the corresponding author upon request.

Ethics approval and consent to participate: Not applicable.

Received for publication: 20 July 2020.
Accepted for publication: 14 December 2020.

Licensee PAGEPress, Italy
Italian Journal of Wound Care 2021; 5(1):65
doi:10.4081/ijwc.2021.65

tage: if every person that suffering from chronic diseases were treated in hospital, until the condition was resolved, the expenses would have an important weight for the budget, which would be significantly affected.

For this reason, today we can say that acute conditions are mainly treated in the hospital, while chronic conditions are rather treated at a territorial level.

These two realities should not be considered distinct from each other, as instead they constantly enter into relationship and this guarantees the best treatment for the patient.[3]

In particular, as regards people with PI, they are periodically visited in specialized centers for the treatment of difficult wounds and, in some cases, they are also treated through surgery, always in the hospital.

As for the daily management of the lesion, however, this is entrusted to a caregiver who can be both a professional who works at a local level, or close person or a relative who is entrusted with the management of the patient.

It is therefore important to ensure excellent collaboration between the hospital and the local area in order to guarantee the best treatment and resolution of the problem as soon as possible.

As for informal caregivers, *i.e.* people who are in charge of the patient and who do not have the knowledge and skills, it is important to provide them with a simple and safe information tool for the application of what will be the best for patients. But not only: they will have to manage all the precautions to be implemented with a patient with PI.

For this reason, an information brochure has been designed in order to provide information on the basic notions for the best care and consequently also facilitate what will be the work of the hospital team.

MATERIALS AND METHODS

The information brochure that we would like to create has as the main objectives to evaluate and visualize the important aspects for people with PI. The content of the brochure will include notions about: the definition, prevention, classification and treatment of PI; the importance of continuity of care for this type of patient; explanations on the daily precautions to be implemented to avoid the worsening or chronicization of the lesions; the actual treatment through the teaching of dressing methods and the application of different advanced dressings based on the stage of the lesions.[4] Naturally, since wound care is a vast topic and a subject of specialization in the nursing field, it will be treated in a simplified way in order to give basic but useful and understandable notions.

All with a view to implementing a path characterized by continuity of assistance, avoiding that the treatment takes place exclusively in hospitals, but inviting the citizen to be an active part of a process that sees the patient as a central element. The concrete work on which this project is based aims precisely to involve caregivers so that they can implement all those procedures that constitute continuity in the care plan of the individual patient.

But what is Care Continuity? To explain the meaning of this activity well, it is first necessary to make some statistical considerations.

Population aging is an increasingly evident phenomenon in developed countries like ours. This phenomenon leads to increasing demand for assistance from the users, which implies the need to change the organizational-management models today.

It is estimated that the age group considered elderly, and therefore more prone to chronic diseases, in 2020 occupied a space within society equal to 23.2% and that in 2050 it will reach 33.00% (Figure 2).[5] The figures make us realize that, with the increase of the population considered most at risk of developing chronic diseases, it will also increase the demand for services in connection.

For this reason, the State, already with the L.R. 19/2006 and in the subsequent Implementing Regulation no. 4/2007,[6] had established: the Single Access Gate (SAG) and the Multidimensional Assessment Unit (MAU).

The SAG is the organization that citizens can contact to request information on their rights regarding the possibility of services and interventions at the local level; the MAU consists of a multidisciplinary team, which has the task of analyzing the request made by the citizen, and then to assess the actual need of interventions. As a result of the evaluations and the confirmation of the actual needs, we activated the requested services to the citizen.

To date, the management of patients with chronic diseases is mainly linked to the assistance provided at the local level; this choice is guided by the presence of a growing

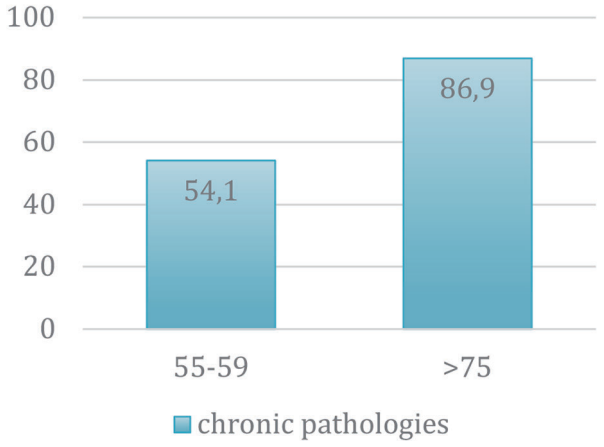


Figure 1. Distribution of chronic diseases in the age groups.

slice of the population suffering from chronic diseases, not curable within hospitals, both for an economic issue that for the best choice of care for the patient.

The expense that would result in the management of all chronic patients in the hospital would be too high and would affect negatively on the available resources. For this reason, a policy is currently adopted that sees the management of the acute patient within the hospital, while chronic diseases are treated locally.

As far as the patient is concerned, prolonged care within the hospital would be uncomfortable, as the hospital stay would be long and unnecessary. We are inclined to treat the citizen in a known place, surrounded by family affections and followed by a team of experts who work through the services provided by the territory.

Given the following considerations, it is therefore important to focus on what is called "continuity of care", *i.e.* the creation of services implemented by professionals as an alternative to hospitals. The goal is to ensure the continuity of patient services outside hospitals, favoring progression in the therapeutic path.

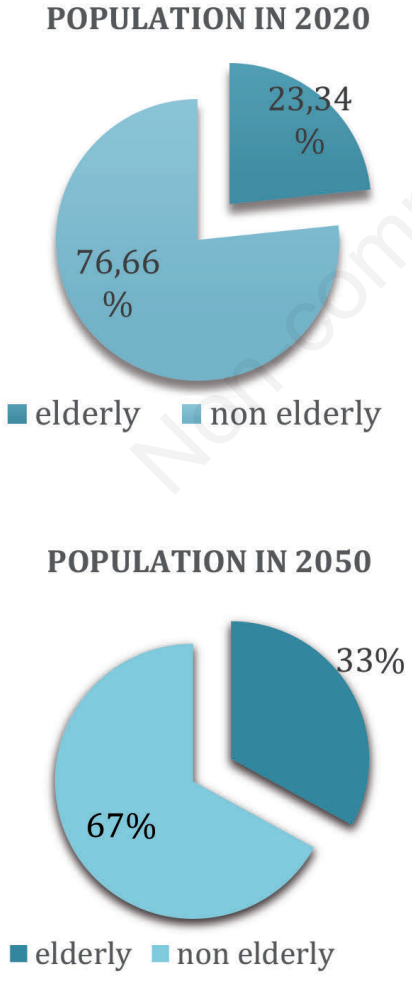


Figure 2. Percentage of the elderly population out of the total.

DISCUSSION

The PLs are a perfect example of chronic diseases that afflict the population. The treatment of these is not an exclusive prerogative of hospitals, but, instead, most of the practical work is done through the activation of territorial health services

The care pathway of PLs involves the involvement of various professional and care figures: the team of professionals operating within the hospital, the team of professionals operating at local level and health professionals who, in their role, may or may not be competent in the field.

The path to this patient starts by being assisted by professionals working in the hospital. These analyze the condition and clinical history to identify risk factors present, those evolutionary and identify which might obstruct the course of treatment. The company, therefore, offers as a service a periodic view of the patient that aims and displays the clinical progress after a more or less short period of time depending on the cases and situations. During this meeting, the type of medication to be used is established and at what timing it must be performed, thus establishing the beginning of the therapeutic path.

Next, the city will be able to comply with the prescription given independently or using the services provided from the territory, through the activation of the SAG and of the MAU. In case there is an actual need for a professional implementation of the prescribed procedures, the territory has the objective to provide regular assistance provided by a professional (ADI). The latter, going to the patient's home at the established times, will carry out the medications in collaboration and in agreement with the hospital team.

If there is a real need for the activation of a professional, then the caregiver will perform the required medications as instructed by the team of professionals.

In the chain of the therapeutic process, some people, who are entrusted with the responsibility of managing the patient, do not have the skills for therapeutic treatments and could be faced with a complex clinical situation. For this reason it is important to educate the citizen and train him on the basic notions of the subject, to avoid creating an interruption in the chain of continuity of care, essential for the resolution of the condition.

An alternative way, compared to the one just outlined, sees the direct activation of the territory without the involvement of the hospital in the first place. In this case, professionals operating locally, such as wound care nurses,[7] provide their services to the patient at home independently.

It is important to underline that in the latter case the professional can always turn to experts who work within

the hospital, to have a comparison and analyze, through a multidisciplinary team, the clinical case, and together choose the best therapeutic strategies for the resolution of the condition.

It is therefore essential to point out the importance of continuity of care for this type of patient, who see most of the work taking place outside the hospital and in collaboration with experts and non-experts.

The intent of this work is to provide information material to all non-professional subjects who are in charge of a patient with PL.

The brochure was created with the aim of informing the citizen about the general and management aspects of the disease (see Figure 3).[8]

Many of these subjects are entrusted with the management of a patient with PL and, very often, they are faced with a condition they do not know.

The brochure consists of thirty pages, within which all the basic notions necessary for resolving the condition have been explained in a simplified way.[9]

Inside it is explained why the management of the patient is not entrusted exclusively to the hospital and there is a need for their collaboration in the therapeutic process.

The first pages introduce the basics for daily life, including mobilization, nutrition and skin care. These details, however obvious they may seem, are actually at the basis of the healing process, and should not be overlooked (see Figure 4).

The specific definition of Pressure Injury (PI) has been inserted with the awareness that some terms may be too specific for the user but also to maintain a scientific language understandable to all. It is not excluded that some of the subjects to whom the brochure is intended are professionals who are familiar with the subject.

Figure 3. Cover of the information brochure.

Figure 4. The basic notions for daily life including mobilization, nutrition and skin care.

Inside, the classifications of the lesions with attached images have been listed, to try to facilitate the citizen in the recognition of the Lesion, since the only explanation could seem complicated, given the presence of specific terms, useful for the classification.[10]

Rating scales are available, such as those of Braden and Push (Figure 5).[11]

The latter have been inserted to facilitate the work of professionals. If a periodic evaluation is carried out by the citizen, it will be possible to evaluate the periodic trend provided by objective data.

It will be possible to set the treatment and its modifications on objective data collected by the caregivers. In this way, the evaluation will not be carried out only on the day of the meeting with the experts but the entire course will be evaluated, regarding both the general condition of the patient, with the relative risk factors (Braden), and the progress of the lesion (Push Tool).

The acronym T.I.M.E.[12] has been inserted because it is a fundamental step in patient management, but the caregiver is not expected to know all the notions of the various phases. The acronym is related by its definition to each letter to simplify reading even for non-experts so that the user knows its meaning (Push Tool).

The most concrete part of the project consists in introducing through tables all the advanced dressings considered most suitable, for the single phases (Figure 6).[13]

After the evaluation of the lesion, the professional will have the task of indicating the most suitable dressing among those proposed. The caregiver is responsible for the application of the indicated drug and the objectives for each phase, taking care to also respect the recommendations.

Warnings are simple tips for good practice in multistage injury management. They are marked with a sign of "danger" to create their own attention in the recipient for those aspects that, if not learned, are a source of error.

Finally, a paragraph on pain management has been inserted.

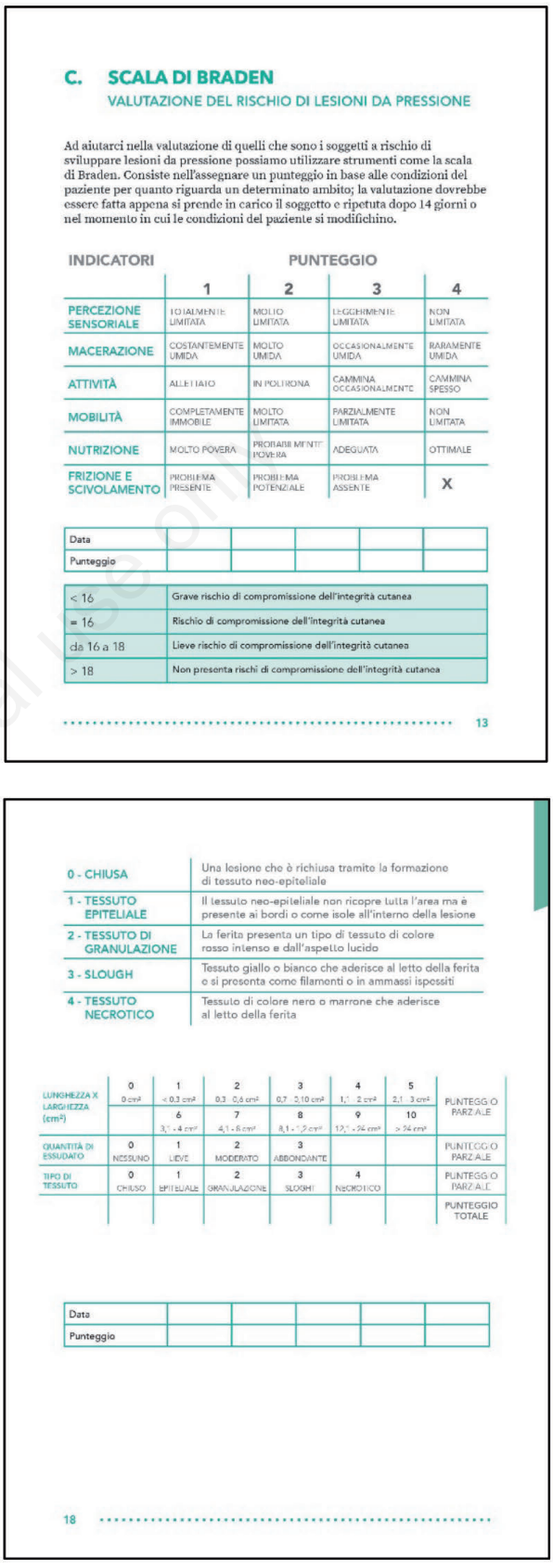
It has been seen, in fact, that the lesions are very painful for patients and the change of dressing can become difficult and traumatic. It is right to be aware that pain is a condition common to this type of patient, for this reason techniques have been introduced some techniques to relieve the pain.

The caregiver is not intended to replace the professional but rather, it is useful to know the pathology and the basic knowledge necessary for the management of this chronic condition.

CONCLUSIONS

The management of difficult lesions is guaranteed by the presence of qualified professionals.

Many operators in possession of first level masters



C. SCALA DI BRADEN

VALUTAZIONE DEL RISCHIO DI LESIONI DA PRESSIONE

Ad aiutarci nella valutazione di quelli che sono i soggetti a rischio di sviluppare lesioni da pressione possiamo utilizzare strumenti come la scala di Braden. Consiste nell'assegnare un punteggio in base alle condizioni del paziente per quanto riguarda un determinato ambito; la valutazione dovrebbe essere fatta appena si prende in carico il soggetto e ripetuta dopo 14 giorni o nel momento in cui le condizioni del paziente si modifichino.

INDICATORI	PUNTEGGIO			
	1	2	3	4
PERCEZIONE SENSORIALE	TOTALMENTE LIMITATA	MOLTO LIMITATA	LEGGERMENTE LIMITATA	NON LIMITATA
MACERAZIONE	COSTANTEMENTE UMIDA	MOLTO UMIDA	OCCASIONALMENTE UMIDA	RARAMENTE UMIDA
ATTIVITÀ	ALLETTATO	IN POLTRONA	CAMMINA OCCASIONALMENTE	CAMMINA SPESSO
MOBILITÀ	COMPLETAMENTE IMMOBILE	MOLTO LIMITATA	PARZIALMENTE LIMITATA	NON LIMITATA
NUTRIZIONE	MOLTO POVERA	PROBABILMENTE POVERA	ADEGUATA	OTTIMALE
FRIZIONE E SCIVOLAMENTO	PROBLEMA PRESENTE	PROBLEMA POTENZIALE	PROBLEMA ASSENTE	X

Data						
Punteggio						

< 16	Grave rischio di compromissione dell'integrità cutanea
= 16	Rischio di compromissione dell'integrità cutanea
da 16 a 18	Lieve rischio di compromissione dell'integrità cutanea
> 18	Non presenta rischi di compromissione dell'integrità cutanea

13

0 - CHIUSA	Una lesione che è richiusa tramite la formazione di tessuto neo-epiteliale
1 - TESSUTO EPITELIALE	Il tessuto neo-epiteliale non ricopre tutta l'area ma è presente ai bordi o come isole all'interno della lesione
2 - TESSUTO DI GRANULAZIONE	La ferita presenta un tipo di tessuto di colore rosso intenso e dall'aspetto lucido
3 - SLOUGH	Tessuto giallo o bianco che aderisce al letto della ferita o si presenta come filamenti o in ammassi ispessiti
4 - TESSUTO NECROTICO	Tessuto di colore nero o marrone che aderisce al letto della ferita

LUNGHEZZA X LARGHEZZA (cm²)	0 0 cm²	1 < 0,3 cm²	2 0,3 - 0,6 cm²	3 0,7 - 1,0 cm²	4 1,1 - 2 cm²	5 2,1 - 3 cm²	PUNTEGGIO PARZIALE
		6 3,1 - 4 cm²	7 4,1 - 8 cm²	8 8,1 - 12 cm²	9 12,1 - 24 cm²	10 > 24 cm²	
QUANTITÀ DI ESSUDATO	0 NESSUNO	1 LIEVE	2 MODERATO	3 ABBONDANTE			PUNTEGGIO PARZIALE
TIPO DI TESSUTO	0 CHIUSO	1 EPITELIALE	2 GRANULAZIONE	3 SLOUGH	4 NECROTICO		PUNTEGGIO PARZIALE
							PUNTEGGIO TOTALE

Data						
Punteggio						

18

Figure 5. Rating scales, such as Braden and push tool.

B. MEDICAZIONE

▸ 1° STADIO

OBIETTIVI	INTERVENTO	DURATA
PREVENIRE LA DEGENERAZIONE DELLA LESIONE	RIPOSIZIONARE IL PAZIENTE	OGNI 12 ORE SE ALLETTATO OGNI 20 MINUTI SE IN CARROZZINA
SALVAGUARDARE LA CUTE	CREMA	
	UNGUENTO	
AUMENTARE LA PROTEZIONE	IDROCOLLOIDE	7 GIORNI
	IDROCOLLOIDE EXTRASOTTILE	7 GIORNI
	SCHIUMA IN POLIURETANO	7 GIORNI
RIDURRE FRIZIONE	FILM SEMIPERMEABILE TRASPARENTE	7 GIORNI
GESTIONE DEL DOLORE		

Collagene: es. CONDRESS, BIONECT
Idrocolloidi: es. COMFEEL, DUODERM
Schiuma di poliuretano: es. BIATAIN, ALLEVYN
Film semipermeabile trasparente: es. TEGADERM

NON MASSAGGIARE LA CUTE VIGOROSAMENTE MENTRE SI APPLICANO I PRODOTTI

21

Figure 6. Example of the tables with advanced dressings.

work in the area to manage this pathology whose numbers are increasing.[14]

It should however be considered that the request of the population is greater than the services provided by the hospital and the territory.

The creation of this leaflet tries to help the families of patients with PL who need frequent treatments and who cannot be guaranteed continuous specialist assessments.

The objective is therefore to train the people, with basic notions, and instruct them in management in order to collaborate with the territory and the hospital for the protection and improvement of the patient's health.

The brochure does not imply the complete detachment of the citizen from the hospital and from the territory, in fact, was created to develop a joint system and competent.

The limit of this project, currently, is its limited distribution to users. After presenting the objectives, we have no data on its effectiveness and practicality due to lack of feedback.

This brochure is presented as a proposal for the territory and for the hospital, with the hope that its application leads to the desired results.

It is expected in the future, the ability to validate the brochure by experts and export it at the local level through the cooperation of the clinics involved in the treatment of difficult lesions.

REFERENCES

1. Annuario Statistico Italiano. [S.L.]: Ist Naz Di Statistica; 2019.
2. Weiten W. 1950-, Psychology applied to modern life: adjustment in the 21st century. 9th ed. Wadsworth Cengage Learning: 2009.
3. Commissione Regionale Dispositivi Medici, Direzione Generale Sanità e Politiche Sociali e per l'Integrazione. Le medicazioni avanzate per il trattamento delle ferite acute e croniche. Allegato 1: Protocollo di trattamento delle lesioni da pressione. Servizio Assistenziale Territoriale – Area Farmaco e Dispositivi Medici, gennaio 2016.
4. Marazzi M, Falcone L. Le Ferite Difficili: Linee Guida Di Trattamento. 2016.
5. Demo.istat.it. 2020. Demo-Geodemo. - Mappe, Popolazione, Statistiche Demografiche Dell'istat. Accessed 6th April 2020. Available from: http://demo.istat.it/altridati/previsioni_naz/
6. Regolamento Regionale 18 gennaio 2007, n. 4. Regolamento Regionale attuativo della legge regionale 10 luglio 2006, n. 19.
7. FNOPI. Master Specialistici delle Professioni Sanitarie 2020. Accessed 25th March 2020. Disponibile presso: https://www.fnopi.it/wp-content/uploads/2019/10/ELENCO-COMPLETO-MASTER.pdf
8. Scalise A. Lesioni Cutanee Croniche. Milano: Edra; 2015.
9. European Pressure Ulcer Advisory Panel, National Pressure Injury Advisory Panel and Pan Pacific Pressure Injury Alliance. Prevention and Treatment of Pressure Ulcers/Injuries: Quick Reference Guide. Emily Heasler (Ed.). EPUAP/ NPIAP/PPPIA: 2019.
10. National Pressure Ulcer Advisory Panal, European Pressure Ulcere Advisor Panal and Pan Pacific Pressure Injury Alliance. Prevencion and Treatment of Pressure Ulcers: Quick Reference Guide. Emily Haesler (Ed.). Cambridge Media: Osborne Park Australia; 2014.
11. Commissione Regionale Dispositivi Medici, Direzione Generale Sanità e Politiche Sociali e per l'Integrazione. Le medicazioni avanzate per il trattamento delle ferite acute e croniche. Allegato 4: Scale di valutazione delle lesioni cutanee. Servizio Assistenziale Territoriale – Area Farmaco e Dispositivi medici, gennaio 2016.
12. Bonadeo P, Marazzi M. Wound Bed Preparation: Evoluzione della Pratica Clinica Secondo I Principi Del TIME. Milano: Aretrè; 2004.
13. Carnali M, Nicolini M, Paolinelli M, et al. Procedura AV2. Prevenzione e cure lesioni da pressione. Professioni sanitarie area infermieristico-ostetricia AV2.
14. Legge 1 Febbraio 2006, n.43. Disposizioni in materia di professioni sanitarie infermieristiche, ostetrica, riabilitative, tecnico-sanitarie e della prevenzione e delega al governo per l'istituzione dei relativi ordini professionali.