Terapia delle Polmoniti nel paziente Fragile

Francesco Stea

Malattia acuta con immagine radiologica di addensamento polmonare segmentario o multiplo, non preesistente, né riferibile ad altre cause note, che compare entro 72 ore dall'esordio clinico dei sintomi.

(British Thoracic Society)

Infectious Diseases Society of America/American Thoracic Society Consensus Guidelines on the Management of Community-Acquired Pneumonia in Adults

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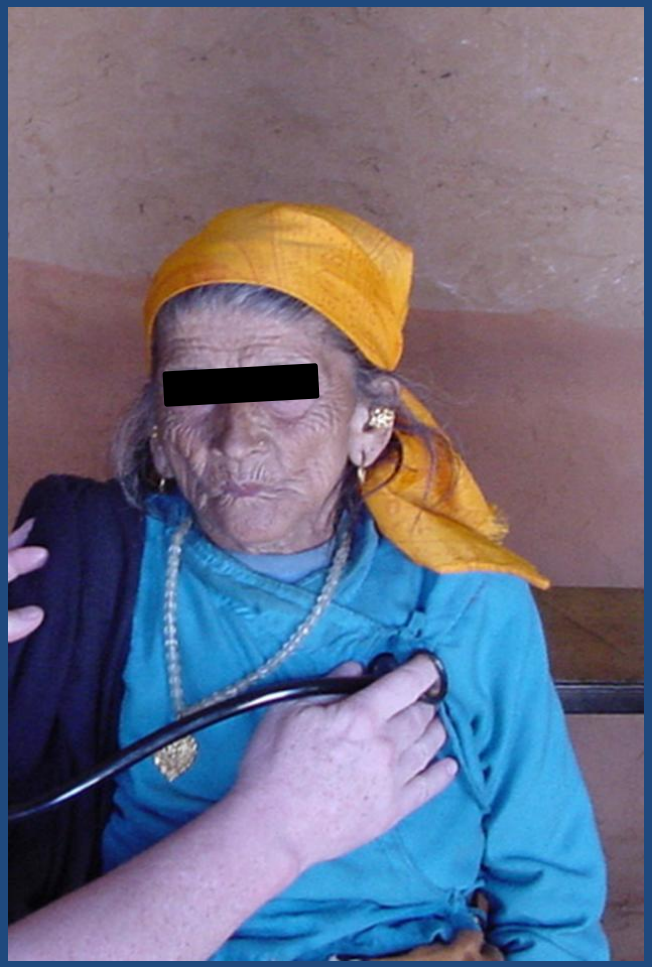
……infezione acuta del parenchima polmonare associata a sintomi di infezione acuta ed accompagnata dalla presenza di un infiltrato acuto ad un Rx Torace e da un esame obbiettivo suggestivo (rumori respiratori alterati e localizzati) in un paziente non ospedalizzato o residente in una struttura di assistenza a lungo termine per più di 14 giorni prima dalla comparsa dei sintomi……

IDSA/ATS Guidelines for CAP in Adults • **CID 2007:44 (Suppl 2)** • S27

Ma sono la stessa cosa ????



Pacers F O'Neal has pneumonia

Sports Ticker
1/2/2006 8:46:40 PM

INDIANAPOLIS (Ticker) - Jermaine O'Neal has pneumonia.

The All-Star forward of the Indiana Pacers was not in uniform for Monday's home game against Seattle. It is unclear when he will practice or play again.

A team spokesman confirmed that O'Neal has pneumonia but has not been placed on the inactive list.

A 6-11 power forward, O'Neal is averaging 22.3 points, 10.0 rebounds and 2.33 blocks in 27 games this season. He ranks 15th, 11th and eighth in the NBA, respectively, in those categories

Definizione

Per OMS tutte le persone con età superiore a 65 anni sono considerate anziane

?

Necessità di introdurre il nuovo concetto di anziano FRAGILE

Definizione

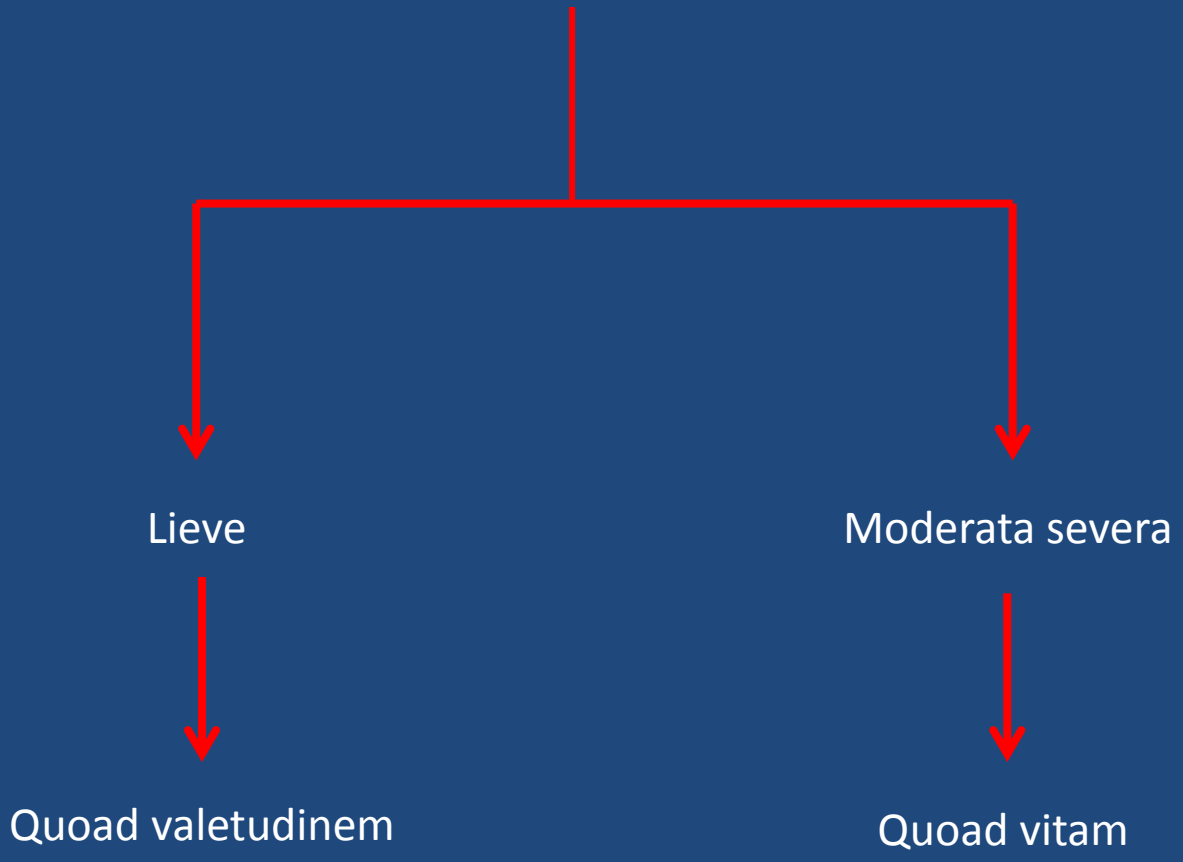
PERSONA ANZIANA CON MAGGIORE POSSIBILITA’ DI AVERE UN ESITO NEGATIVO A CAUSA DI UN FATTORE PRECIPITANTE ACUTO

Classificazione

- Paziente anziano non fragile

- Paziente anziano fragile

Classificazione



Score e flow chart

Score di severità clinica come i criteri CURB 65 (Confusione, Uremia, R*espiratoty rate*, *low Blood pressure*, età uguale o > di 65 aa)

o

Modelli prognostici come il PSI (Pneumonia Severity Index) possono essere usati per identificare pazienti con CAP candidati a trattamento domiciliare

(Fortemente raccomandato: livello I di evidenza)

Il PSI stratifica i pazienti in 5 classi di rischio di mortalità a 30 giorni e la sua predittività è stata confermata in molti studi. L'ultima fase di validazione è stata realizzata in una coorte «Pneumonia PORT» (*Patient Outcome Research Team*) di cui una parte trattata in ambulatorio e un'altra ricoverata.

Tabella 4 Punteggio per definire il rischio di morte a 30 giorni in paziente con polmonite di origine extraospedaliera secondo lo studio PORT

CARATTERISTICHE DEL PAZIENTE	PUNTI ASSEGNATI
Fattori demografici	
Età (anni) Maschio Femmina	 Anni Anni -10
Residente in casa di riposo o casa protetta	+10
Patologia associata	
Malattia Neoplastica	+30
Patologia epatica	+20
Scompenso congestizio	+10
Patologia cerebro-vascolare	+10
Patologia renale	+10
Esame obiettivo	
Stato mentale alterato	+20
Frequenza respiratoria ≥ 30/min	+20
PA sistolica < 90 mmHg	+20
Temperatura < 35 o ≥ 40 °C	+15
Frequenza cardiaca ≥ 125 /min	+10
Esami di laboratorio o radiologici	
Ph < 7,35	+30
Azotemia > 65 mg/dl	+20
Natriemia < 130 m Eq/L	+20
Glicemia > 250 mg/dl	+10
Ematocrito< 30%	+10
PO_2 < 60 mmHg o SaO_2 < 90%	+10
Versamento pleurico	+10

Punteggio <90: consigliata una gestione a Domicilio

Punteggio >91: consigliata una gestione in Ospedale

90 – 66 = 24

90 – 80 = 10

CURB65

BTS su una vasta coorte di pazienti ospedalizzati individuava un rischio di morte di 21 volte maggiore nei pazienti con CAP che presentavano all'ammissione 2 dei seguenti 3 criteri: *tachipnea, ipotensione diastolica ed aumenta azotemia*, escludendo i pazienti con IRC e i pazienti giovani.

- In una più recente revisione su 1068 pazienti ha individuato, in un'analisi multivariata, l'indipendenza di 5 fattori predittori di rischio elevato di mortalità

Punteggio CURB-65 (BTS) Punteggio da 0 a 5

Lo compongono *sei elementi* raccolti durante l'ammissione in ospedale:

- confusione mentale
- urea ematica superiore a 20 mg/dl
- frequenza respiratoria superiore o uguale a 30 atti/min,
- pressione sistolica inferiore a 90 mmHg o diastolica inferiore o uguale a 60 mmHg
- età superiore o uguale a 65 anni

CURB 65 e mortalità

La ***mortalità*** per il punteggio

- 0 è di 0,7%
- 1 del 3,2% → **a domicilio**

- 2 del 13 %
- 3 del 17% → **osservazione breve/ricovero breve**

- 4 del 41,5%
- 5 del 57% → **ricovero in degenza ordinaria / ICU**

Una versione semplificata del CURB 65, CRB-65 è stata approvata per la medicina di base non richiedendo il dosaggio dell'azotemia e non perdendo in sensibilità

Consensus document

Guidelines for the management of community-acquired pneumonia in the elderly patient

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Classificazione

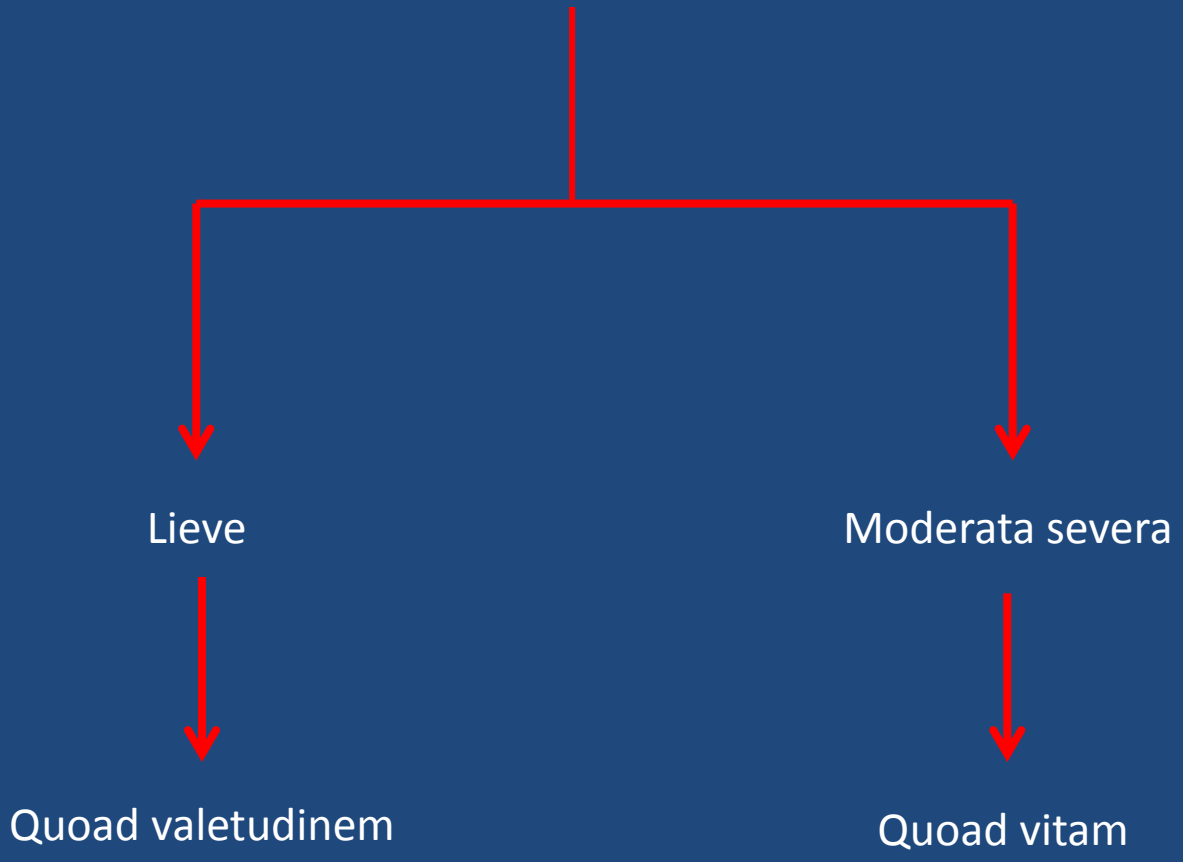


Table 1 | **Integral Geriatric Assessment (IGA) adapted to emergency care**

Area examined	Scale	Questions
Cognitive situation	Six-Item Screener	Name 3 objects for the subject to learn : What year is it? What monthsis it? What day of the week is it? What 3 objects did I ask you to remember? **At risk if has 3 or more errors**
Confusional syndrome	Confusion Assessment Method	1. Acute onset or fluctuating course 2. Lack of attention 3. Disorganized thoughts 4. Altered level of consciousness **At risk if 1 and 2, more if 3 or 4**
Depresision	Emergency Department Depression Screening Instrument	1. Do you often feel sad or depressed? 2. Do you often feel defenseless? 3. Do you often feel discouraged or unhappy? **At risk with 2 positive answers**
Functional situation	Barthel index	**At risk if has acute functional impairment (Barthel ≤ 60, moderate-severe dependence)**
Comorbidity	Charlson index	**Greater risk with higher score (≥ 3 points, high comorbidity)**
Polypharmacy	Criterias of STOP & START	Identify inappropriate medication and lack of prescription of medications indicated
Falls	Get up and Go test	Time from getting up from an armless chair, walking 3 m and returning and sitting in the chair. **At risk of frailty if > 10-20 sec and falls > 20 sec.**
Social situation	Family situation of the Gijón Scale of Sociofamilial assessment	Lives with family without physical/psychological dependence (1); lives with spouse of similar age (2); lives with family and/or spouse and presents some grade of dependence (3); lives alone and has children nearby (4); lives alone with no children or these live at a distance (5). **Higher score greater risk.**

Table 2 Screening scales in the elderly patient

	TRST	ISAR
Age	≥ 75 years	≥ 65 years
Functional	Has difficulty walking, transfers or has a history of recent falls?	Prior to the acute process for which the patient was visited, was help reguarly necessary in basic activities?
		After the acute process for which the patient was visited was more help than necessary required for care?
Mental	Does the patient have cognitive impairment?	Do the patient have serious memory problems?
Social	Does the patient live alone or have a capacitated care provider?	
Sensorial		Does the patient see well in general?
Drugs	Does the patient take 5 or more different drugs?	Does the patient take 3 or more different drugs a day?
Use of hospital services	Without taking this visit into account, has the patient been to the emergency department in the last 30 days or hospitalized in the last 3 months?	Has the patient been admitted to hospital one or more days (excluding a visit to the emergency department) in the last 6 months?
Professiona l recommendation	The nurse believes that this patient requires home follow up for some reported reason.	

An elderly patient is considered to be at risk with a global score of greater than or equal to 2 in Identification of Senior at Risk (ISAR) or the Triage Risk Screening Tool (TRST).

Possibile Flow-chart

Paziente > 65aa

ISAR e/o TRST > 2

IGA modificato

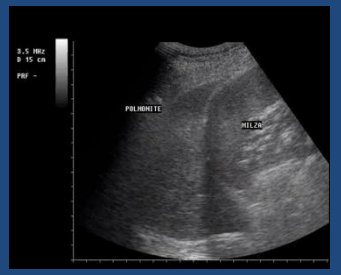
Presentazione Clinica della Polmonite in Rapporto all'Età

	Giovane	Anziano
Esordio improvviso	+	-
Febbre e brivido scuotente	+	±
Interessamento pleurico	+	±
Tosse	+	±
Espettorato purulento	+	±
> Frequenza respiratoria	±	+

Presentazione Clinica della Polmonite nell'anziano fragile – Rx Torace

Nel 30% dei casi non evidenti segni radiografici in ingresso. In alcuni studi Sensibilità 43,5% con valore predittivo positivo del 26,9% (con Tc da riferimento).

1° Suggerimento : Ecografia bed-side



2° Suggerimento : nel sospetto clinico ripetizione della Rx a 24-48 h

3° Suggerimento : Tc da riservare a pattern radiologico atipico e/o a non responders

Eziologia della polmonite acquisita in comunità in funzione dell'età del paziente

Patogeni (%)

Età (anni)	Gram-positivi*	Gram negativi†	Atipici§	Virus
< 10	10-20	5	20	60
11-30	60	5	30	5
31-65	60	30	5	5
> 65	35	60	5	5

**S. pneumoniae*, *S. aureus*;

†*H. influenzae*, *M. catarrhalis*;

§*L. pneumophila*, *M. pneumoniae*, *C. pneumoniae*.

Colonizzazione faringea e Microaspirazione

- **Colonizzazione** : età, comorbidità, situazione funzionale basale, carica batterica, uso antimicrobici, presenza di dispositivi, precedenti contatti con centri di Assistenza Sanitaria
- **Microaspirazione silente** (dimostrata in molti casi di CAP) : sesso maschile, demenza, BPCO associata ad alterazione riflesso tussigeno, farmaci (antipsicotici, inibitori di pompa), malattia neurologica cronica, SNG

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Guidelines for the Management of
Community Acquired Pneumonia in Adults
Update 2009

A Quick Reference Guide

British Thoracic Society
www.brit-thoracic.org.uk

Table 5 Initial empirical treatment regimens for community acquired pneumonia (CAP) in adults

Pneumonia severity (based on clinical judgement supported by CURB65 severity score)	Treatment site	Preferred treatment	Alternative treatment
Low severity (eg, CURB65 = 0–1 or CRB-65 = 0, <3% mortality)	Home	Amoxicillin 500 mg tds orally	Doxycycline 200 mg loading dose then 100 mg orally *or* clarithromycin 500 mg bd orally
Low severity (eg, CURB65 = 0–1, <3% mortality) but admission indicated for reasons other than pneumonia severity (eg, social reasons/unstable comorbid illness)	Hospital	Amoxicillin 500 mg tds orally If oral administration not possible: amoxicillin 500 mg tds IV	Doxycycline 200 mg loading dose then 100 mg od orally *or* clarithromycin 500 mg bd orally
Moderate severity (eg, CURB65 = 2, 9% mortality)	Hospital	Amoxicillin 500 mg – 1.0g tds orally *plus* clarithromycin 500 mg bd orally If oral administration not possible: amoxicillin 500 mg tds IV or benzylpenicillin 1.2 g qds IV *plus* clarithromycin 500 mg bd IV	Doxycycline 200 mg loading dose then 100 mg orally or levofloxacin 500 mg od orally *or* moxifloxacin 400 mg od orally*
High severity (eg, CURB65 = 3–5, 15–40% mortality)	Hospital (consider critical care review)	**Antibiotics given as soon as possible** Co-amoxiclav 1.2 g tds IV plus clarithromycin 500 mg bd IV (If legionella strongly suspected, consider adding levofloxacin ¥)	Benzylpenicillin 1.2 g qds IV *plus* either levofloxacin 500 mg bd IV *or* ciprofloxacin 400 mg bd IV OR Cefuroxime 1.5 g tds IV or cefotaxime 1 g tds IV or ceftriaxone 2 g od IV, plus clarithromycin 500 mg bd IV (If legionella strongly suspected, consider adding levofloxacin ¥)

bd, twice daily; IV, intravenous; od, once daily; qds, four times daily; tds, three times daily.
*Following reports of an increased risk of adverse hepatic reactions associated with oral moxifloxacin, in October 2008 the European Medicines Agency (EMEA) recommended that moxifloxacin "should be used only when it is considered inappropriate to use antibacterial agents that are commonly recommended for the initial treatment of this infection".
¥ Caution – risk of QT prolongation with macrolide-quinolone combination.

Somministrazione precoce dell'antibiotico entro 4 - 8h riduce la mortalità, livello di evidenza II, probabilmente è ancora più efficace entro 4 h!!**(*),** nei pazienti con CAP severa

- Terapia mirata nel paziente ospedalizzato

(*) Kumar A et al Duration of Hypotension before initiation of effective antimicrobial therapy is the critical determinant of survival in human septic shock Crit Care Med 2006 jun;34: 1589-96
JAMA .1997; 278:2080-2084

Table 4 Empiric treatment in CAP in the elderly

	SCENARIO	TREATMENT
Patient without frailty	Outpatient treatment	Amoxicillin/clavulanate or cefditoren + clarithromycin or moxifloxacin or levofloxacin
	Treatment at admission	Amoxicillin/clavulanate or ceftriaxone + azithromycin or moxifloxacin or levofloxacin
Patient with frailty	Mild frailty*	Amoxicillin/clavulanate or ceftriaxone + azithromycin or moxifloxacin or levofloxacin
	Moderate-severe frailty	Ertapenem or amoxicillin/clavulanate**
Uncommon pathogens	*Enterobacteriaceae*/anaerobes	Ertapenem or amoxicillin/clavulanate**
	Methicillin-resistant *S. aureus*	Add linezolid
	P. aeruginosa	Piperaciliin/tazobactam or imipenem or meropenem or cefepime + levofloxacin or ciprofloxacin or amikacin or tobramycin

* Evaluate risk factors for microaspiration and multiresistant bacteria with special caution.

** Evaluate local resistance to amoxicillin/clavulanate and patient severity.

Table 5 Antibiotic doses

ANTIBIOTIC	DOSE	DOSE IN RENAL INSUFFICIENCY (ml/min)	
AMIKACIN	15-20 mg/kg/24 h	60-80: 9-12 mg/kg/24 h;	40-60: 6-9 mg/kg/24 h
		30-40: 4,5-6 mg/kg/24 h;	20-30: 3-4,5 mg/kg/24 h
		10-20: 1,5-3 mg/kg/24 h;	< 10: 1-1,5 mg/kg/24 h
AMOXICILLIN-CLAVULANATE IV	2 g/6-8 h	30-50: 1 g/8 h;	10-30: 500mg/12 h
		< 10: 500mg/24 h	
AMOXICILLIN-CLAVULANATE VO	2/0,125 g/12 h	30-50: 500 mg/8 h;	10-30: 500mg/12 h
		< 10: 500mg/24 h	
AZITHROMYCIN IV/VO	500 mg/24 h	No adjustment required	
CEFDITOREN VO	400 mg/12 h	30-50: 200mg/12 h;	< 30: 200 mg/24 h
CEFEPIME IV	2 g/8 h	30-50: 2 g/12 h;	10-30: 2 g/24 h
		< 10: 1 g/24 h	
CEFTRIAXONE IV	1-2 g/12-24 h	> 10: not required	< 10: máximo 2 g/24 h
CIPROFLOXACIN IV	400 mg/12 h	30-50: not required;	< 30: 200 mg/12 h
CIPROFLOXACIN VO	500 mg/12 h	30-50: not required;	< 30: 250 mg/12 h
ERTAPENEM IV	1 g/24 h	< 30: 500 mg/24 h	
IMIPENEM IV	1 g/6-8 h	30-50: 250-500 mg/6-8 h;	< 30: 250-500 mg/12 h
LEVOFLOXACIN IV/VO	500 mg/12-24 h	20-50: 250 mg/12-24 h;	10-20: 125 mg/12-24 h
		< 10: 125 mg/24 h	
LINEZOLID IV/VO	600 mg/12 h	No adjustment required	
MEROPENEM IV	1 g/8 h	30-50: 1 g/12 h;	10-30: 500 mg/12 h
		< 10: 500 mg/24 h	
MOXIFLOXACIN IV/VO	400 mg/24 h	No adjustment required	
PIPERACILLIN/TAZOBACTAM IV	4/0,5 g/6-8 h	20-50: 2/0,25 g/6 h;	< 20: 2/0,25 g/8 h
TOBRAMICINA IV	4-7 mg/kg/24 h	60-80: 4 mg/kg/24 h;	40-60: 3,5 mg/kg/24 h
		30-40: 2,5 mg/kg/24 h;	20-30: 2 mg/kg/24 h
		10-20: 1,5 mg/kg/24 h	

GRAZIE PER L'ATTENZIONE