Antibiotic therapies on the ward

Not everyone needs i.v. therapy!

Uncomplicated urinary tract infection

- Oral whenever possible !
- as short term as possible !
- Quinolones and cephalosporins: OUT!

Substance	Dose	Duration
Fosfomycin-Trometamol	300mg 1 per day	1 Day
Nitrofurantoin	50mg 4 per day	7 Days
Nitrofurantoin RT	100mg 2 per day	5 Days

In patients with diabetes mellitus without other relevant diseases/complicating factors, urinary tract infections can be considered uncomplicated if the metabolic situation is stable

Pyelonephritis

- Mild and moderately severe courses of pyelonephritis should be treated with oral antibiotics
  - antibiotic therapy for 5 to 10 days
  - Oral: cefpodoxime, ciprofloxacin, levofloxacin

- severe infections with accompanying systemic symptoms, such as nausea, vomiting, or circulatory instability
  - parenteral: ceftriaxone, ciprofloxacin, levofloxacin

Pneumonia – Community acquired

Mild severity
- CRB-65: 0
- oxygenation not altered spO2 > 89%
- no decompensated comorbidity

Moderate severity
- between mild and severe

Severe pneumonia
- severe sepsis / septic shock
- respiratory insufficiency
- decompensated comorbidity

Pneumonia – Community acquired

- Microbiological diagnostics:
  - at least 2 BK pairs
  - Urine AG test for Legionella
  - adequate sputum or TS/BS/BAL

- seasonal PCR for influenza (!)
- no (!) multiplex PCR for viral/bacterial pathogens

Pneumonia – Community acquired

	Disease Severity	Therapy 1st Choice		2nd Choice
p.o.	**Mild Pneumonia without comorbidity**	Amoxicillin		Moxifloxacin, Levofloxacin
	oral therapy			Clarithormycin, Azithromycin
				Doxycycline
	Mild Pneumonia with comorbidity	Amoxicillin/Clavulanic Acid		Moxifloxacin, Levofloxacin
	oral therapy			
	chronic heart disease			
	CNS disease with dysphagy			
	COPD			
	reduced mobility			
i.v. – p.o.	**Moderate Pneumonia**	Amoxicillin/Clavulanic Acid	w/wo Makrolid for 3 days	Moxifloacin, Levofloxacin
	start with iv - sequential oral therapy	Ampicillin/Sulbactam	w/wo Makrolid for 3 days	
		Cefuroxime	w/wo Makrolid for 3 days	
		Ceftriaxone	w/wo Makrolid for 3 days	
		Cefotaxime	w/wo Makrolid for 3 days	
i.v.	**Severe Pneumonia**	Piperacillin/Tazobactam	with Makrolid for 3 days	Moxifloxacin, Levofloxacin (no montherapy in septic shock)
	start with iv - sequential oral therapy if possible	Ceftriaxone	with Makrolid for 3 days	
		Cefotaxime	with Makrolid for 3 days	

Pneumonia – Community acquired

Disease Severity	Therapy		
	1st Choice		2nd Choice
Mild Pneumonia without comorbidity	Amoxicillin		Moxifloxacin, Levofloxacin
oral therapy			Clarithormycin, Azithromycin
			Doxycycline
Mild Pneumonia with comorbidity	Amoxicillin/Clavulanic Acid		Moxifloxacin, Levofloxacin
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	Ceftriaxone	w/wo Makrolid for 3 days	
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Severe Pneumonia	Piperacillin/Tazobactam	with Makrolid for 3 days	Moxifloxacin, Levofloxacin (no montherapy in septic shock)
start with iv - sequential oral therapy if possible	Ceftriaxone	with Makrolid for 3 days	
	Cefotaxime	with Makrolid for 3 days	

Pathogen spectrum basically the same for all severity levels

Pneumonia – Community acquired

- Mild pneumonia with defined comorbidity
- Combination penicillin with BLI:
  - Spectrum expansion against ß-lactamase-producing S. aureus, H. influenzae, and enterobacteria
  - Caution Unacid: dose of penicillin component too low
- Clarithromycin?
  - Initial combination for three days
  - then discontinue after negative rapid Legionella test
  - **P.o. bioavailability extremely good (also Clinda and Levo)!**

Pneumonia – Community acquired

Duration :

- mild to moderate CAP: 5-7 days, shorter may be possible.
- before end of therapy always clinical stabilization for at least 2 days
- oral sequential therapy or directly oral!

Severe CAP: up to 7 days

- before end of therapy always clinical stabilization for at least 2 days
- oral sequential therapy if necessary
- initially at least 3 days parenterally

Oral sequential therapy: criteria

- Heart rate < 100 / min
- Respiratory rate < 25 / min
- Systolic blood pressure > 90 mmHg
- Body temperature < 37.8 oC
- Ability to take in food orally
- Normal state of consciousness
- No hypoxemia (SpO_2 > 90%, PaO_2> 60 mmHg)