

## P13 Clinical microbiology II

### Task 1: Search for respiratory pathogens in practical microbiology

With help of your teacher and the slideshow, describe following picture. Use the knowledge from this picture in following two tasks (Task 2 and Task 3)

possible pathogen: \_\_\_\_\_

disc containing \_\_\_\_\_

possible pathogens: \_\_\_\_\_

disc containing \_\_\_\_\_ and \_\_\_\_\_

possible pathogen (tiny, colourless, haemolysis) \_\_\_\_\_

possible pathogen (something larger, white, haemolysis) \_\_\_\_\_

Common pharyngeal flora mostly consists of

a) \_\_\_\_\_ appearance: \_\_\_\_\_

b) \_\_\_\_\_ appearance: \_\_\_\_\_

line of \_\_\_\_\_ because of \_\_\_\_\_

### Task 2: Case A

For this casuistic, documented by a the order form, try to examine corresponding sample (sputum), to find a pathogen and to make a conclusion and interpretation. Step by step, fill in the individual fields in the „screen of laboratory information system“

Kód pojistovny 1 1 1	požaduje díl A	IČP 7 2 1 2 3 4 5 6 Odbornost 7 8 9	Datum 1 5 1 2 0 8	Čís. dokladu	Poř. č.
<b>POUKAZ NA VYŠETŘENÍ / OŠETŘENÍ</b>				provedl díl B	
Pacient Linda Green		IČP			
Č. pojistěnce *1932		Odbornost			
Variabilní symbol		Var. symbol			
Odeslán ad:		Datum			
		Kód			
		Poč.			
Kód náhrady		1			
		2			
		3			
		4			
		5			
		6			
		7			
		8			
		9			
		10			
		11			
		12			
		13			
		14			

**Požadováno:**

sputum for bacteriological examination

**Poznámka:**

72	Dr. Michal Teplý
123	generální praktičtí lékař
456	Čamprahovice 8, Brno

razítko a podpis lékaře

Dne: \_\_\_\_\_

razítko a podpis

VZP-06w/1999

Patient: Linda Green *1932 Dg.: Pneumonia					
Specimen: Sputum			Ordered by: Dr. Microbe Terrible		
Bacterium A: description	Conclusion:	Interpretation	Microscopy result: Epithelial cells: WBCs: Bacteria (describe):		
Bacterium B: description	Conclusion:	Interpretation			
Bacterium C: description	Catalase	10 % NaCl	Hyaluronidase	Conclusion:	Interpretation
Antibiotic susceptibility test (bacterium C)			Final conclusion and recommendation for treatment:		

**a) Microscopy of sputum**

Look at the smear prepared of your specimen. Try to find individual objects (bacteria, host cells). Fill in the field „Microscopy“:

- +++ = more than 10 in the observation area
- ++ = less than 10 in the observation area
- + = only rare (one or less per an observation area)
- 0 = none

**b) Description of bacteria**

On blood agar, describe size, colour and haemolytical properties of given bacteria. Do not describe other characteristics. Take into account, that there was no growth visible on Endo agar. Bacteria A and B should be bacteria considered to be parts of normal flora. Bacterium C will be a pathogenic bacterium, that will be more tested in parts c) and d)

**c) More tests**

Fill in the results of catalase test, hyaluronidase test and growth on blood agar with 10 % NaCl for Bacterium C.

**d) Antibiotic susceptibility**

Fill in the antibiotic susceptibility test for Bacterium C. Write down allways name of antibiotic and „S“ or „R“ (susceptible or resistant). Reference zones are written on your table.

**e) Final conclusion**

Try to formulate several words for general practitioner. Especially try to find out (with help of your teacher) what antibiotics among susceptible ones would be the best antibiotic of choice.

**Task 3: Case B**

Also for this casuistic, documented by a the order form, try to examine corresponding sample (throat swab), to find a pathogen and to make a conclusion and interpretation. Step by step, fill in the individual fields in the „screen of laboratory information system“. The way of doing it is like in previous task.

Kód pojistovny 1 1 1	požaduje díl A	IČP 7 2 1 2 3 4 5 6	Datum	Čís. dokladu	Poř. č.						
		Odbornost	7 8 9 1 5 1 2 0 8	provedl díl B							
<b>POUKAZ NA VYŠETŘENÍ / OŠETŘENÍ</b>											
Pacient	Martin Blue										
Č. pojistěnce	*1991	acute tonsilitis, 38.8 °C									
Variabilní symbol											
Odeslán ad:		Kód náhrady									
Požadováno:	throat swab for bacteriological examination										
Poznámka:	<table border="1"> <tr> <td>72</td> <td>Dr. Microbe Terrible</td> </tr> <tr> <td>123</td> <td>general practitioner</td> </tr> <tr> <td>456</td> <td>Compositive 8, Brno</td> </tr> </table>					72	Dr. Microbe Terrible	123	general practitioner	456	Compositive 8, Brno
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456	Compositive 8, Brno										
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Dne:											
VZP-06x/1999	razítko a podpis										

Patient: Martin Blue      *1991 Dg.: Accute tonsilitis						
Specimen: Throat swab Ordered by: Dr. Microbe Terrible						
Bacterium A: description	Conclusion:		Interpretation			
Bacterium B: description	Conclusion:		Interpretation			
Bacterium C: description	Cata- lase	Bile- -aesc.	PYR	CAMP	Conclusion:	Interpretation
Antibiotic susceptibility test (bacterium C)				Final conclusion and recommendment for treatment:		

