

**To exclude diagnoses instead of
diagnosing - the concept of
preventable dangerous outcomes in
primary care and how to classify
them in ICPC**

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Malignant beach laziness!

- Contagiousness is low. In stadium of infection before disease onset chances for a cure are excellent.
- There is a blood test.
- **Your test result is positiv.**



Malignant beach laziness:

1. Test properties:

- 99 out of 100 infected persons will have a positive test result (= sensitivity 99%)
- 98 out of 100 **not** infected persons will have a negative test result (= specificity 98%)

2. Prevalence:

- For every 1000 persons returning from this country there will be one infected

Hummometer!

Your test result has been positive. With which likelihood are you infected?

1. 99%
2. 98%
3. etwa 95%
4. etwa 50%
5. etwa 5%
6. 2%
7. 1%



Explanation:

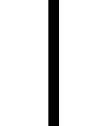
		disease sought-after		
		present	absent	
test result	positive	true positive a	false positive b	a + b
	negative	false negative c	true negative d	c + d
total		a + c	b + d	a+b+c+d

- Sensitivity = probability that a diseased person will be recognized ($a/a+c$)
- Spezificity = probability that a healthy person will have a negative test result ($d/b+d$)
- Positive predictive value = probability that a person with a positive test result has the disease ($a/a+b$)
- Negative predictive value = probability that a person with a negative test result is healthy ($d/c+d$)

		infected	not infected	
test result	positive	true positive 99	false positive 2000	2099
	negative	false negative 1	true negative 98.000	98.001
Gesamt		100	100.000	100.100

- Sensitivity = $a/a+c = 99 : 100 = 99\%$
- Spezificity = $d/b+d = 98.000 : 100.000 = 98\%$
- Positive predictive value = $a/a+b = 99:2.099 = 4,7\%$
- Negative predictive value = $d/c+d = 98.000/98.001 \approx 100\%$

100%



therapeutic threshold



diagnostic threshold



0%

Primary care physicians are working in a low prevalence environment.

This is why they should better exclude diseases instead of searching for them.

Their task is to watch out for **preventable dangerous outcomes** or their “red flags”

Shouldn't they be part of ICPC-3?