

# Health policy and economics

## Workshop 2022-2023

A Workshop is a class exercise based on group work. Students will be given a number of tasks alongside some reading materials. You will be asked to work through them with your group and this would be followed by feedback and class discussion.

There will be no marks assigned to your work, however this would be highly advised to help you master the skills required for the midterm and final exams.

You will be allowed to use the lecture notes, text books or your own notes

### Learning outcomes

By the end of the workshop you will be able to:

- Understand how economic evaluations can inform decision making in health care and policy

### Process

- Workshop introduction (5 minutes)
- In groups of 3-4 students; start to work through the worksheet of this workshop papers (40 minutes)
- During the workshop Dr R. Mousa will be available to advice and facilitate group discussions, please raise your hand and she will call up to your group.
- Final group discussion (all the class) (10 minutes)

### Exercise 1: Sensitivity analysis

Now we will be performing a sensitivity analysis, challenging whether the conclusion will be changing with the change of the probability of having an adverse event when taking TNF A was 10% and for TNF B was 15%.

*The range of probability to experience adverse effect is 7%-15% for TNF A and TNF B 10-25%*

*Have a careful look on the table below:*

Variable	Range	TNF A Overall Costs (\$)	TNF B Overall Costs (\$)	$\Delta$ Overall Costs: A – B (\$)
	L=Low Estimate H=High Estimate			
Base case		700	650	+50
Cost of treating adverse events	L = \$500	650	575	+75
	H = \$2,500	850	875	-25
Cost per course of therapy for antibiotic A	L = \$400	500	650	-150
	H = \$800	900	650	+250
Cost per course of therapy for antibiotic B	L = \$350	700	500	+200
	H = \$750	700	900	-200
Probability of adverse events for antibiotic A	L = 7%	670	650	+20
	H = 15%	750	650	+100
Probability of adverse events for antibiotic B	L = 10%	700	600	+100
	H = 25%	700	750	-50

Comments on the following statements:

- For the entire range (7-15%) the cost of TNF A was higher, so the results are insensitive to the range of % of adverse effects.

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- The total cost of TNF A- TNG B at a probability of 10-25% for B was 100 \$ if the % of adverse event was close to 10%. There was cost saving of 50\$ when the % of adverse event was close to 25%.

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