

Question 1

Only one answer is correct

What is Translational Medicine?

- a. Translational Medicine is the translation of research outcomes into therapeutic, diagnostic or preventive tools and strategies
- b. Translational Medicine is the process of turning appropriate biological discoveries into drugs and medical devices that can be used in standard of care
- c. Translational Medicine is the process of reshaping education and practice of various disciplines to deliver more physicians being able to help patients.
- d. a & b
- e. a & c

Question 2

Multiple answers are possible

Define QALY:

- a. Measure the year of life in perfect health that have been gained
- b. Quality Adjusted Life Years
- c. Quantity Affected Life Years
- d. Grading scale in which 1 represents the perfect health and 0 the death
- e. Grading scale in which 0 represents the perfect health and 1 the death

Question 3

Multiple answers are possible

What is precision medicine?

- a. Precision medicine indicates that we the latest innovations in medicine, we can now be more precise in how we select the treatment for the patient
- b. Precision medicine refers to the precise time of sleep needed for each person in order to function well
- c. The right treatment for the right patient at the right time
- d. The use of medicines, such as statins, that can treat very large groups of patients in a precise way
- e. The stratification and treatment of patients with similar symptoms to tailor the treatment, based upon e.g. biomolecular changes identified
- f. Online tools, e.g. Dr. Google, helping you to make your diagnosis and to get better

Question 4

Indicate which statement(s) is(are) correct. Multiple answers are possible

- a. CAR T-Cell therapy is a personalized therapy
- b. CAR T-Cell therapy is the new therapy used to fight the coronavirus outbreak
- c. CAR T-Cell therapy is an example therapy for which we need to find new economic models to keep the therapy accessible and affordable
- d. Innovative medicines are inventions from the lab that do not need clinical trials to reach the patient
- e. Innovative medicines are complex technological advances, including complex clinical development and hence, they need to be produced according to the GxP guidelines: Good Laboratory Practice, Good Clinical Practice and Good Manufacturing Practice
- f. Science should follow regulation, not the other way around
- g. Regulation should follow science, not the other way around
- h. Universal prevention is much better than health-related prevention
- i. For the future, we should strive for reimbursement negotiations on the European level, and go beyond the national level
- j. The European reimbursement of drugs should be stopped as it is too complex. We should start negotiating reimbursement at the national level

Question 5

Indicate which statement(s) is(are) correct. Multiple answers are possible

- a. We cannot accept that there are research questions left answered at time of marketing authorisation
- b. E-health records form the basis of the learning healthcare system
- c. It is clear that decision-makers should not collaborate (silos) and that the sequential order is preferred when moving along the drug development pathway

Decision-makers along the drug development pathway



Silos or collaboration?

Sequential or parallel?

- d. In the above picture, it is clear that evidence planning nowadays should move from right to left.
- e. Patient advocacy is important to take into account. We have examples (both successes and failures) from patients who helped to decide what the benefit-risk was in certain cases.
- f. PICO is important for patients: Phase I in Clinical Trials Operations

g. The exposome can be defined as all life-course environmental exposures from prenatal period onwards; including internal body processes, external exposures, and lifestyle factors.

h. There is no need for interdisciplinarity and collaboration when studying the exposome. Toxicologists are the sole scientists who can provide such complex information.

i. Globally, the main causes of death, according to the WHO, are infectious diseases, such as HIV/AIDS and Tuberculosis

j. HIV/AIDS patient advocates have altered the drug development cycle. Patient preferences are now much more included and part of the way new drugs reach the patient.

Question 1

- a. You are right, but your answer is only partially correct. Translational medicine can be defined as the translation of research outcomes into therapeutic, diagnostic or preventive tools and strategies, and also as the process of turning appropriate biological discoveries into drugs and medical devices that can be used in standard of care.
- b. You are right, but your answer is only partially correct. Translational medicine can be defined as the translation of research outcomes into therapeutic, diagnostic or preventive tools and strategies, and also as the process of turning appropriate biological discoveries into drugs and medical devices that can be used in standard of care.
- c. No. Translational Medicine is not aimed at reshaping the educational landscape to deliver more physicians. It is reshaping the educational field to attract a variety of disciplines and talents being able to turn inventions into innovations reaching the patient in a more efficient and targeted way.
- d. Very good!

Question 2

The correct answers are a., b., d.

QALY:

- Measure the year of life in perfect health that have been gained
- Quality Adjusted Life Years
- Grading scale in which 1 represents the perfect health and 0 the death

Question 3

The correct answers are a., c., e.

Precision medicine refers to the tailoring of medical treatment to the individual characteristics of each patient. It does not literally mean the creation of drugs or medical devices that are unique to a patient, but rather the ability to classify individuals into subpopulations that differ in their susceptibility to a particular disease, in the biology or prognosis of those diseases they may develop, or in their response to a specific treatment. Preventive or therapeutic interventions can then be concentrated on those who will benefit, sparing expense and side effects for those who will not. Although the term 'personalized medicine' is also used to convey this meaning, that term is sometimes misinterpreted as implying that unique treatments can be designed for each individual (National Research Council).

Question 4

The correct answers are a., c., e., g., h., i.

Question 5

The correct answers are b., d., e., g., j.