Medicine and technology

VOCABULARY PRACTICE

UPPER-INTERMEDIATE | B2

Name: _____ **Date:** _____

1 Match each digital-health term with its meaning.

1 telemedicine	____	a medical image production for diagnosis
2 clinical decision support	____	b failure to detect a condition that is present
3 interoperability	____	c unauthorised access to protected information
4 algorithmic bias	____	d biological measurements linked to an individual
5 data breach	____	e remote delivery of clinical care
6 robotic surgery	____	f system providing evidence-based prompts to clinicians
7 diagnostic imaging	____	g surgery assisted by programmable mechanical systems
8 biometric data	____	h incorrect indication that a condition is present
9 false positive	____	i systematic unfairness produced by a computational system
10 false negative	____	j ability of different systems to exchange and use information

2 Complete the digital-health collocations.

bias | **breach** | **data** | **imaging** | **interoperability** | **positive** | **support** | **surgery**

1 clinical decision _____

2 diagnostic _____

3 robotic _____

4 health-system _____

5 protect biometric _____

6 detect algorithmic _____

7 report a data _____

8 investigate a false _____

3 Choose the most precise term for the context.

1 A consultation by secure video: *telemedicine / robotic surgery*.

2 Two hospitals can exchange usable records: *interoperability / imaging*.

3 A model performs worse for an underrepresented group: *algorithmic bias / data breach*.

4 A scan suggests disease that is not present: *false positive / false negative*.

5 A test misses disease that is present: *false negative / false positive*.

6 Software prompts a clinician about an interaction: *decision support / telemedicine*.

7 Fingerprints and heart-rate patterns: *biometric data / diagnostic images*.

8 Patient records are accessed without permission: *data breach / interoperability*.

Medicine and technology

4 Complete the implementation review with terms from the box.

algorithmic bias | biometric data | clinical decision support | data breach | diagnostic imaging | false negative | false positive | interoperability | robotic surgery | telemedicine

The programme expands **1** _____ but requires reliable connectivity. Record **2** _____ allows clinicians to view results across sites. Images from **3** _____ feed into **4** _____, yet recommendations remain subject to clinical review. Validation must measure **5** _____ and **6** _____ rates and identify **7** _____. Strong safeguards protect **8** _____ and reduce the risk of a **9** _____. A separate trial evaluates **10** _____.

5 Read the text and answer the questions briefly.

An algorithm enters the clinic

A hospital introduced software that ranked X-rays for urgent review. It did not replace radiologists; it changed the order in which images appeared. During evaluation, researchers compared performance across age groups, scanner types and clinical settings. The tool shortened waiting time for some urgent cases, but occasional false negatives remained. Staff also discovered that workflow changes affected results: an accurate model was less useful when alerts were poorly displayed or responsibility for follow-up was unclear.

1 What did the software rank? _____

2 Did it replace radiologists? Explain. _____

3 Across which three factors was performance compared? _____

4 What benefit was observed? _____

5 What error still occurred? _____

6 Why can an accurate model still be ineffective? _____

6 Rewrite using the expression in capitals.

1 The systems exchange and use one another's records. **INTEROPERABILITY** ___

2 The test indicates disease where none exists. **POSITIVE** _____

3 The model disadvantages one group systematically. **BIAS** _____

4 Protected patient information was exposed. **BREACH** _____

OVER TO YOU

Write a **120-150 word** evaluation of a digital-health system. Address clinical purpose, workflow, validation, false results, fairness, privacy and human oversight.

[ ] Use at least ten target expressions. [ ] Distinguish false positives from false negatives. [ ] Separate model accuracy from clinical usefulness.

Medicine and technology

ANSWER KEY

1 Digital-health terms

1 **e** 2 **f** 3 **j** 4 **i** 5 **c** 6 **g** 7 **a** 8 **d** 9 **h** 10 **b**

2 Digital-health collocations

1 **support** 2 **imaging** 3 **surgery** 4 **interoperability** 5 **data** 6 **bias** 7 **breach** 8 **positive**

3 Precise terms

1 **telemedicine** 2 **interoperability** 3 **algorithmic bias** 4 **false positive**
5 **false negative** 6 **decision support** 7 **biometric data** 8 **data breach**

4 Implementation review

1 **telemedicine** 2 **interoperability** 3 **diagnostic imaging** 4 **clinical decision support** 5 **false positive** 6 **false negative** 7 **algorithmic bias** 8 **biometric data** 9 **data breach** 10 **robotic surgery**

5 Reading - suggested answers

1 X-rays for urgent review. 2 No; it changed their order. 3 Age, scanner type and clinical setting.
4 Shorter waiting time for some urgent cases. 5 False negatives. 6 Poor displays or unclear follow-up responsibility can undermine it.

6 Rewriting - possible answers

1 The systems have **interoperability**. 2 It is a false **positive**. 3 The model shows algorithmic **bias**. 4 There was a data **breach**.

Over to you: Answers will vary. Check technical precision, workflow, validation, fairness and safeguards.