BIOLOGY YEAR 12 - MODULE 8 - LESSON 14

Treatment of Non-infectious Disease — Pharmacological, Surgical, Lifestyle and Emerging Therapies

Use this worksheet after reading the lesson to practise the key ideas and prove you can meet the success criteria.

Name _____

Date _____

Class _____

1. Key Ideas

Treating non-infectious disease means understanding what is broken at the molecular, cellular, or organ level — and finding the most precise, effective, and safe way to fix it. Every treatment approach in this lesson traces directly back to the disease mechanisms you studied in IQ2.

- The four main categories of treatment: pharmacological, surgical, lifestyle, and emerging therapies
- Why understanding disease mechanism directly enables rational drug design

2. Success Criteria

By the end, you should be able to:

- The four main categories of treatment: pharmacological, surgical, lifestyle, and emerging therapies
- Specific examples of each treatment type for diseases studied in IQ2
- How CFTR modulators treat cystic fibrosis at the molecular level

3. Key Terms

infectious disease
understanding what is broken at the molecular, cellular, or organ level — and finding the most precise, effective, and s

what
the advantages and disadvantages of treating it with: (a) a drug; (b) lifestyle modification?

Why lifestyle modification
mechanistically the most direct treatment for T2D

and understanding this distinction
fundamental to evaluating any therapy

but they
often the hardest to develop

function that
lost or inhibit a process that is overactive

4. Activity: Build the Lesson Map

Use the lesson to complete the table. Keep answers brief but specific.

Prompt	Your answer
Main concept	
Important example	
Common mistake to avoid	
How this links to the next lesson	

5. Short Answer Questions

1. Explain this lesson goal in your own words: "The four main categories of treatment: pharmacological, surgical, lifestyle, and emerging therapies". Use one specific example from the lesson.

BAND 3 2 MARKS

2. Apply this idea to a new example: "Specific examples of each treatment type for diseases studied in IQ2". Show your reasoning clearly.

BAND 4 3 MARKS

3. Analyse why this idea matters for understanding Treatment of Non-infectious Disease — Pharmacological, Surgical, Lifestyle and Emerging Therapies: "How CFTR modulators treat cystic fibrosis at the molecular level".

BAND 5 4 MARKS

6. Extend: Apply the Idea

BAND 5/6 5 MARKS

A student gives a memorised answer about Treatment of Non-infectious Disease — Pharmacological, Surgical, Lifestyle and Emerging Therapies but does not use evidence or reasoning.

Improve the answer by writing a stronger response that uses accurate terminology, a relevant example and a clear explanation.

7. Multiple Choice

1. What is the best first step when answering a question about Treatment of Non-infectious Disease — Pharmacological, Surgical, Lifestyle and Emerging Therapies?

- [ ] A. Identify the key concept being tested
- [ ] B. Write every fact from memory
- [ ] C. Ignore the command word
- [ ] D. Skip examples and evidence

2. Which answer would show stronger understanding of Treatment of Non-infectious Disease — Pharmacological, Surgical, Lifestyle and Emerging Therapies?

- [ ] A. An answer with accurate terms and reasoning
- [ ] B. A copied definition only
- [ ] C. A single-word response
- [ ] D. An answer with no example

3. What should you do if a question asks you to explain?

- [ ] A. Link the idea to a reason or cause
- [ ] B. List unrelated facts
- [ ] C. Only draw a diagram
- [ ] D. Write the shortest possible answer

8. Success Criteria Proof

Finish with evidence that you can do each success criterion.

SUCCESS CRITERION 1

Prove that you can: The four main categories of treatment: pharmacological, surgical, lifestyle, and emerging therapies

BAND 3 2 MARKS

SUCCESS CRITERION 2

Prove that you can: Specific examples of each treatment type for diseases studied in IQ2

BAND 4 3 MARKS

SUCCESS CRITERION 3

Prove that you can: How CFTR modulators treat cystic fibrosis at the molecular level

BAND 5 4 MARKS

One thing I still need help with: