

Physical Chemical and Therapeutic Incompatibilities

Experiment 10 - Practical Notes

Name: _____ Roll no.: _____ Date: _____

Aim

To distinguish incompatibility types and document a suitable response.

Principle

An incompatibility may alter a preparation physically, cause a chemical change or produce an unsuitable clinical effect. The type of problem determines the appropriate remedy.

Requirements

- Assigned prescription examples, non-reactive demonstration preparations and authorised medicine information.

Procedure

1. Physical case

Observe a safe case of insolubility, precipitation or immiscibility. Record the change and whether the intended dosage form permits a stable dispersion.

2. Chemical case

Study a supplied reaction or degradation case. Identify the affected ingredients and evidence of change without preparing a hazardous combination.

3. Therapeutic case

Review a fictional duplicate-therapy, contraindication or interaction case. Check indication, patient factors and current approved information.

Pharmaceutics

4. Propose a response

Consider an authorised change in vehicle, order of mixing, separate dispensing or prescriber clarification as appropriate. Do not silently change the prescription.

5. Document

State the issue, supporting evidence, proposed correction and supervisor/prescriber decision.

Observations and Record

Case	Type	Issue and authorised response
Insolubility / immiscibility	Physical	_____
Degradation / reaction	Chemical	_____
Duplicate or unsuitable therapy	Therapeutic	_____

Result

Record the completed observations, calculations and conclusion with units. State any limitation of the observation.

Precautions

- Distinguish a formulation fault from a deliberate dosage-form design.
- Use supervisor review for reformulation and clinical decisions.

Viva Questions and Answers

1. Is every precipitate a chemical incompatibility?

No. A physical loss of solubility may produce precipitation without chemical conversion.

2. Why contact the prescriber?

A proposed change may affect treatment, strength or intended use and requires appropriate authorisation.

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