

Integrated Questions set for testing

Here's a comprehensive set of 25 questions that cover **Retrieval-Augmented Generation (RAG)** and **agent capabilities** with varying complexity levels. The questions test simple information retrieval, multi-step reasoning, and summarization skills across the dataset of pharmaceutical products.

Simple Retrieval Questions (RAG Focused)

1. **Q:** What is the primary indication for Acetazolamide?
Purpose: Test basic information retrieval.
 2. **Q:** List the packaging options available for Clobazam Tablets.
Purpose: Verify retrieval of packaging-specific details.
 3. **Q:** What are the common side effects of Celecoxib?
Purpose: Assess retrieval of side effect information.
 4. **Q:** What is the mechanism of action of Bimatoprost Ophthalmic Solution?
Purpose: Test retrieval of a product's pharmacological details.
 5. **Q:** Are there any contraindications for using Aspirin in cardiovascular prevention?
Purpose: Check retrieval of safety-related information.
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Intermediate Reasoning Questions

6. **Q:** If a patient has a sulfa allergy, can they safely use Dorzolamide HCl Ophthalmic Solution?
Purpose: Test the ability to reason using product information and clinical knowledge.
 7. **Q:** How do Clindamycin Hydrochloride Capsules differ from Erythromycin Topical Solution in their indications and applications?
Purpose: Test comparative reasoning.
 8. **Q:** What would be the recommended action if a patient develops diarrhea while using Clindamycin Hydrochloride Capsules?
Purpose: Assess reasoning for side effect management.
 9. **Q:** Explain why Diclofenac Sodium and Misoprostol Delayed-Release Tablets are prescribed together.
Purpose: Test synthesis of product combination rationale.
 10. **Q:** How do the mechanisms of Atorvastatin and Aspirin complement each other in cardiovascular disease prevention?
Purpose: Test reasoning about synergistic effects.
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Advanced Multi-Step Reasoning Questions

11. **Q:** A patient is using Dorzolamide HCl and Timolol Maleate Ophthalmic Solution (Preservative-Free). What conditions might warrant the use of this formulation, and what

should be monitored?

Purpose: Test reasoning about formulation-specific advantages and patient safety.

12. **Q:** Compare and contrast the therapeutic uses of Cromolyn Sodium Inhalation Solution, Cromolyn Sodium Oral Solution, and Celecoxib.

Purpose: Assess the ability to analyze multiple products with different applications.

13. **Q:** What are the potential risks of combining Chlordiazepoxide Hydrochloride and Clidinium Bromide Capsules with Clobazam in a patient with anxiety and IBS?

Purpose: Test reasoning about multi-drug interactions and safety.

14. **Q:** Explain the rationale for prescribing Clomipramine Hydrochloride Capsules to a patient with depression and chronic pain.

Purpose: Evaluate reasoning about secondary indications.

15. **Q:** A patient with severe eczema and arthritis is prescribed Clobetasol Propionate Topical Solution, Celecoxib, and Diclofenac Sodium and Misoprostol Delayed-Release Tablets. Summarize the combined treatment strategy and potential risks.

Purpose: Test reasoning about multi-condition management.

Summarization Questions

16. **Q:** Summarize the dosage, side effects, and indications for Dorzolamide HCl and Timolol Maleate Ophthalmic Solution.

Purpose: Test the ability to condense detailed product information.

17. **Q:** Summarize the differences in indications, contraindications, and side effects between Clindamycin Hydrochloride and Clomipramine Hydrochloride.

Purpose: Assess the ability to synthesize and contrast information.

18. **Q:** Provide a patient-friendly summary of Aspirin and Extended-Release Dipyridamole's uses and potential side effects.

Purpose: Test the ability to tailor summarization for patient communication.

19. **Q:** Summarize the therapeutic strategies for managing asthma using Cromolyn Sodium Inhalation Solution, Clindamycin Hydrochloride Capsules, and Celecoxib.

Purpose: Evaluate synthesis of multi-drug approaches.

20. **Q:** Summarize the indications and benefits of combining Atorvastatin Calcium, Diclofenac Sodium, and Aspirin in a cardiovascular patient with arthritis.

Purpose: Test complex summarization involving multi-condition therapy.

Integration and Complex Scenario Analysis

21. **Q:** A patient with glaucoma, arthritis, and high cholesterol is prescribed Bimatoprost Ophthalmic Solution, Celecoxib, and Atorvastatin Calcium. Summarize the treatment plan, potential interactions, and monitoring requirements.

Purpose: Test comprehensive reasoning and summarization skills.

22. **Q:** Compare the safety profiles of Clobetasol Propionate, Dorzolamide HCl, and Celecoxib when used in long-term therapy.
Purpose: Assess reasoning and synthesis of safety-related data.
23. **Q:** Explain the advantages and potential drawbacks of using a preservative-free formulation of Dorzolamide HCl and Timolol Maleate for glaucoma.
Purpose: Test nuanced reasoning about formulation-specific benefits.
24. **Q:** A patient is concurrently prescribed Clobazam, Clomipramine Hydrochloride, and Aspirin. Summarize the therapeutic rationale and assess whether any interactions should be monitored.
Purpose: Evaluate the ability to analyze multi-drug therapy scenarios.
25. **Q:** A patient presents with mastocytosis, asthma, and severe skin inflammation. Summarize a comprehensive treatment plan involving Cromolyn Sodium Oral Solution, Cromolyn Sodium Inhalation Solution, and Clobetasol Propionate.
Purpose: Test advanced reasoning and summarization in a complex, multi-condition case.
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Evaluation Goals

- **Simple Retrieval:** Ensure accurate and quick retrieval of specific data (Questions 1–5).
- **Intermediate Reasoning:** Test the ability to combine product knowledge with clinical reasoning (Questions 6–10).
- **Advanced Reasoning:** Assess multi-product and multi-condition reasoning (Questions 11–15).
- **Summarization:** Evaluate the capability to condense and communicate detailed product information (Questions 16–20).
- **Integration:** Test the system’s ability to synthesize and analyze complex, real-world scenarios (Questions 21–25).

This test suite provides comprehensive coverage for validating both RAG-based retrieval capabilities and agent reasoning across various levels of complexity.