

Sample Stations - Part II (OSCE)

SAMPLE STATION #5

Interactive Station (with a Standardized Patient) – involving a prescription medication

TITLE: **Warfarin / Carbamazepine Interaction**

OBJECTIVES:

- To identify and explain a drug/drug interaction problem.
- To recommend an appropriate solution.

COMPETENCIES TESTED:

Competency 2 Patient Care

| | | |
|----------|-----|--|
| Elements | 2.1 | Develop a professional relationship with the patient. |
| | 2.2 | Obtain information about the patient. |
| | 2.4 | Determine the patient's actual and potential drug therapy problems. |
| | 2.5 | Develop the patient's care plan, in partnership with the patient and in collaboration with other health professionals. |

Competency 7 Communication and Education

| | | |
|-----------|-----|--|
| Elements: | 7.1 | Establish and maintain effective communication skills. |
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CANDIDATE'S ANSWER SHEET:

Place bar code label here

You are working in a pharmacy in a medical clinic. The following **prescription** has been left with you to be processed.

- Attach one bar code label to the form – in the space indicated above.
- **The physician who wrote the prescription is in the station. You may speak with him/her as needed.**
- The patient record is provided in the station for your reference. Please do NOT write on it.
- You are NOT required to dispense or prepare the prescription or counsel the patient.

Your tasks are to:

1. Review the prescription for any drug related problem(s).
2. You may speak with the physician if:
 - a) you need more information.
 - b) you wish to discuss this patient's therapy.
3. **You must speak directly with the physician to:**
 - a) identify and explain any drug related problem(s).
 - b) recommend an appropriate solution to the problem(s).
4. If no change is necessary, fill in the bubble beside "Fill as written".
OR
5. If a change of therapy is recommended:
 - a) fill in the bubble beside "Change or clarify as follows, as discussed with the physician".
 - b) specify an appropriate drug and/or other option/s.
 - c) document any changes on the prescription review.

When you have finished (or when the final buzzer/signal sounds), give this prescription form to the assessor.

Time Frame: You have 7 minutes to complete this station.

Crossroads Medical Clinic
1655 West Broadway
City, Province
879-8874

For Chris Langley
731 W 3rd Street

current date

Carbamazepine (Tegretol) 200mg

Mitte: 30

Sig: Take 100mg bid for
trigeminal neuralgia.
Increase to 200mg bid if no
relief after 2 weeks.

Dr. J. Gaucher Assume physician's signature is original
J. Gaucher, MD

PRESCRIPTION REVIEW

Fill as written **OR**

Change or clarify as follows, as discussed with
the physician:

Continue on reverse if necessary

SCENARIO DESCRIPTION:

A physician has just written a new prescription for a patient with trigeminal neuralgia. The candidate may consult with the physician about any drug related problem(s) introduced with the new prescription.

CLIENT:

Standardized Physician:

Name: Dr. Jean Gaucher
Gender: Either

Behavior, Affect and/or Mannerisms Required:

Friendly, relaxed, open to suggestions.

Patient Record Information:

Patient Name: Chris Langley
Gender: Male
Age: 55 years old
Weight: 80 kg (180 lbs)
Medical History: Deep vein thrombosis (DVT) – 5 weeks ago
Trigeminal neuralgia – newly diagnosed
Allergies: None known
Current Medications:

| NAME - Trade (generic) & STRENGTH | APPEARANCE | DATE STARTED | DOSE & HOW / WHEN TAKEN | PURPOSE & EFFECTS |
|--|----------------------|-------------------------|------------------------------------|------------------------------|
| Warfarin 5 mg | round, orange tablet | 5 weeks ago in hospital | 5 mg daily | blood thinner |

Other information (Standardized Health Professional responds as follows, when asked):

Symptoms:

- Pain in face (trigeminal neuralgia).
- Patient had a leg injury playing recreational floor hockey, followed by deep vein thrombosis in the left leg. He will be on warfarin for several more months...depending on resolution of symptoms (pain, edema).
- Prescription dispensed 4 weeks ago from local pharmacy.
- You will be seeing him again in one month. His INR has been quite stable at 2.5 and was last done just a few days ago. You are agreeable to ordering (at the candidate’s suggestion) more frequent lab work.
- Patient was in hospital for one week following the DVT.
- Previous amoxicillin prescription was for a chest infection, unrelated to the current problem.

STANDARDIZED HEALTH PROFESSIONAL INSTRUCTIONS:

Standardized Health Professional's Opening Statement:

“Hello, I’m Dr. Gaucher. I just saw Mr. Langley and wrote that new prescription for him. I’ll just wait a few minutes while you check it, in case you have any questions.”

- a) If candidate recommends a change without identifying the problem, the Standardized Health Professional **must** ask:

“What is the problem?”

- b) If candidate identifies the problem but does not explain it, the Standardized Health Professional **must** ask:

“About the interaction / you mentioned an interaction – can you give me a bit more information?”

- c) Following discussion of the problem, if the candidate has not yet offered a recommendation, the Standardized Health Professional **must** ask:

“What would you suggest to resolve the problem?”

- d) If the candidate wants to change the Tegretol to a different drug, the Standardized Health Professional **must** ask:

“I have had a lot of success with carbamazepine in trigeminal neuralgia...so I prefer to use it....
Do you have any other suggestions?”

- e) If the candidate discourages use of carbamazepine and warfarin concurrently or still wants to change the Tegretol to an alternate drug, the Standardized Health Professional **must** say:

“I’ll take that under advisement and note your concern here, but for now I want him on both.”

- f) If the candidate recommends more frequent monitoring as a general precaution, without identifying or explaining the interaction, the Standardized Health Professional **must** ask:

“What do you think the results would show?”

- g) If the candidate identifies the problem and suggests monitoring INR as before without discussing frequency or using an alternative, the Standardized Health Professional **must** say:

“He’s going for monthly blood work so will have another test in about 3 or 4 weeks.”

Closing Line: “Thank you.”

ASSESSOR INFORMATION (to guide scoring):

Problem Solved (full solution) *if candidate:*

- ★ Identifies a (potential) carbamazepine - warfarin drug interaction.
- ★ Explains the mechanism of the interaction: carbamazepine induces warfarin metabolism/cytochrome P450 enzymes.
- ★ Explains probable outcome of the interaction: expect a decreased INR/decreased anticoagulant effect.
- ★ Explains management of the interaction: warfarin dose may need to be increased.
- ★ Recommends acceptable option(s): use of both/carbamazepine as ordered AND monitor INR more frequently
- OR other acceptable drug.

Solved/Marginal (partial solution) *if candidate:*

- ★ Identifies a (potential) carbamazepine - warfarin drug interaction.
- ★ Explains either the mechanism of action OR probable outcome (NOT both) - provides scant information.
- ★ Explanation of management of interaction is nonspecific – e.g., may need to adjust warfarin dose OR do not use together.
- ★ Recommends acceptable option(s): use of both/carbamazepine as ordered AND monitor INR more frequently
- OR other acceptable drug.

Uncertain (unsolved/marginal) *if candidate:*

- ★ Identifies a (potential) carbamazepine – warfarin drug interaction.
- ★ Does not explain either the mechanism of the interaction or the probable outcome OR explanation is unclear.
- ★ Recommends NOT using carbamazepine and warfarin together, but does NOT suggest a solution.
- ★ Recommends increased INR monitoring.

Unsolved *if any of the following apply:*

- ★ Does NOT identify the carbamazepine - warfarin drug interaction.
- ★ Incorrectly explains the interaction (e.g., carbamazepine inhibits warfarin metabolism or results in increased INR or enhanced anticoagulation).
- ★ Does NOT recommend increased monitoring.
- ★ Recommends unacceptable solution: (i.e. change to phenytoin, stop warfarin or decrease dose of warfarin).
- ★ Indicates “Fill as written” without discussing the interaction or the need for more frequent INR monitor

CHECKLIST (expected candidate responses):

1. Determines that patient is currently taking warfarin.
2. Identifies and explains drug interaction between warfarin and carbamazepine.
3. Explains mechanism: carbamazepine increases the metabolism of warfarin / induces cytochrome P450 enzymes.
4. Explains outcome: decreased INR / decreased anticoagulant effect.
5. Explains management:
 - warfarin dose may need to be increased
 - do not use warfarin and carbamazepine together
6. Recommends acceptable option(s):
 - monitor INR more frequently

AND

- continue carbamazepine as ordered (fill as written) **OR**
 - change from carbamazepine to acceptable alternative (Neurontin [gabapentin], Depakene [valproic acid], Rivotril [clonazepam], Lioresal [baclofen])
7. Gives incorrect explanation: **(unsolved)**
 - carbamazepine **decreases** metabolism **OR increases** INR
 - warfarin does may have to be **decreased**
 8. Recommends unacceptable option(s): **(unsolved)**
 - continue monitoring INR monthly (no increased frequency)
 - change to Phenytoin (with or without monitoring)
 - discontinue warfarin
 9. Correctly documents consultation / outcome on prescription / answer sheet.
 10. Indicates will “Fill as written” WITHOUT advising to monitor INR more frequently. **(unsolved)**

RATINGS (to be based on standard rating guidelines and Assessor Information above):

Communications

- 4=Acceptable
- 3=Acceptable/Marginal
- 2=Unacceptable/Marginal
- 1=Unacceptable

Outcome

- 4=Problem Solved
- 3=Solved/Marginal
- 2=Uncertain
- 1=Unsolved

Performance

- 4=Acceptable
- 3=Acceptable/Marginal
- 2=Unacceptable/Marginal
- 1=Unacceptable

Misinformation Yes No

Risk to Patient Yes No