

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