

The AI Study System for Medical Students and Residents

A working method and 40 tested prompts for turning any AI assistant into a tutor that makes you better at exams and on the wards, not lazier

Karim Sidhom, MD

2026 EDITION

Read this first

Most students use AI the way they used to use a search bar: type the question, copy the answer, feel productive, remember nothing a week later. This pack is the opposite. Every prompt in it makes the AI do the part that is not learning (formatting, organizing, generating practice, playing the examiner) so that you do the part that is (retrieving, deciding, explaining, being wrong and finding out why).

I am a urology resident. I built this system for my own Royal College preparation and for the students I teach on rotation, and every prompt here has been run hundreds of times. It works with any current assistant (Claude, ChatGPT, Gemini, or whatever your school licenses). Paste the prompt, fill the brackets, and follow the rule at the top of each section.

Two rules that make everything below work:

1. **The AI never sees the answer before you do.** You answer first. Then you paste the AI's version and compare. If you skip this, you are reading, not studying.
2. **Verify every number against a source you trust.** AI assistants are excellent at structure and weak at exact thresholds. When a prompt returns a cutoff, a dose, or a percentage, check it against your guideline or textbook before it goes in your notes. The prompts below force the assistant to flag its own uncertain numbers so you know where to look.

How the system fits together

Phase	What you do	Prompts
Before a rotation or a block	Build a map of the topic and a two-week plan	1 to 5
Daily learning	Turn lectures, chapters and cases into retrieval practice	6 to 14
Ward and clinic	Prepare presentations, anticipate pimp questions, write better notes	15 to 22
Exam preparation	Generate and grade practice questions, run mock orals, find your weak spots	23 to 32
Reading the literature	Read guidelines and papers faster and more critically	33 to 37
Maintenance	Spaced review, weekly audit, and keeping the AI honest	38 to 40

Copy the prompts exactly. The odd phrasing (“do not reveal”, “grade me as a strict examiner”) is deliberate; it is what stops the assistant from doing your thinking for you.

Part 1: Before the rotation

Rule: you are building a map, not memorizing. Spend 90 minutes here per rotation, no more.

Prompt 1: The topic map

I am a [year] medical student starting a [specialty] rotation in [number] days. Build me a one-page map of the specialty for a learner at my level: the 10 to 15 presentations I will see most, the 5 emergencies I must never miss, the 8 procedures I should understand conceptually, and the 5 investigations I will order or interpret most often. Present it as four short lists. Do not explain anything yet. Mark with an asterisk the three items that most often appear on [exam name] examinations.

Prompt 2: What the attending expects

Take the role of an experienced [specialty] attending who has supervised hundreds of students. In 200 words, tell me what separates a student you would write a strong letter for from an average one on a [length] rotation. Be specific about behaviours in the OR or clinic, on the wards, and in presentations. Do not give generic advice about being enthusiastic.

Prompt 3: The two-week plan

Here is my rotation schedule: [paste schedule or describe: clinic days, OR days, call, teaching sessions]. Here is the topic map from before: [paste]. Build a 14-day study plan that assigns one topic per day matched to what I will actually see that day, with a 30-minute evening review slot and a 10-minute morning retrieval slot. Output as a table with columns Day, Clinical exposure, Topic, Evening task, Morning retrieval question. Keep every task to something I can finish tired.

Prompt 4: Day-one vocabulary

List the 40 terms, abbreviations and eponyms a student hears on a [specialty] service in the first week that are not obvious from general medicine. For each, give a definition of at most 12 words. No explanations beyond the definition. Alphabetical.

Prompt 5: The dumb-question bank

Give me 15 questions a student is embarrassed to ask on a [specialty] rotation but should know the answer to (equipment, logistics, what the team assumes you know). Then answer each in two sentences.

Part 2: Daily learning

Rule: you answer first, every time. The AI produces the material; you produce the retrieval.

Prompt 6: Chapter to retrieval questions

I have just read the following chapter or notes: [paste text or describe the topic and source]. Write 12 short-answer questions that test the highest-yield facts and decisions in it, ordered from foundational to applied. Do not include the answers. After I reply with my answers, grade each one as correct, partly correct, or wrong, give the correct answer in one sentence, and tell me which two questions I should re-attempt tomorrow.

Prompt 7: The Feynman check

I am going to explain [topic] to you as if you were a first-year medical student. Read my explanation and then do three things: list any factual errors, list any steps I skipped or hand-waved, and ask me the one question a sharp student would ask that my explanation cannot answer. Do not correct the errors yet; just list them. Here is my explanation: [type it out from memory, no notes].

Prompt 8: Compare and contrast

Build a comparison table for [condition A] versus [condition B] versus [condition C] with rows for typical patient, key history feature, key exam finding, first investigation, the finding that clinches the diagnosis, first-line management, and the one thing that would make you worry. Keep each cell under 12 words. Then write one clinical vignette that could be any of the three and ask me which it is and why.

Prompt 9: Mechanism before memorization

Explain why [drug or intervention] works for [condition] at the level of mechanism, in plain language, in under 150 words, then list the three side effects that follow directly from that mechanism. I want the logic chain, not a list of facts.

Prompt 10: The numbers I must know

For [topic], list every number a student is expected to know cold on [exam name]: cutoffs, doses, timeframes, percentages, sizes. Present as a two-column table, Number and What it decides. Flag with [check] any value you are not certain of so I can verify it against my guideline. Do not pad the list; if there are only six numbers, give six.

Prompt 11: Case to concept

Here is a patient I saw today, de-identified: [age, sex, presentation, key findings, what was done]. Tell me which core concept this case illustrates, what the textbook version of this presentation looks like, how my patient differed from the textbook, and one question the attending could ask me about this patient tomorrow. Do not add information about the patient that I did not give you.

Prompt 12: Error journal entry

I got this wrong today: [describe the question or the clinical decision and what you thought]. Classify the error as a knowledge gap, a reasoning error, or a recall failure, explain the difference in one sentence each, tell me which it was and why, and give me one sentence to write in my error journal that would stop me making it again.

Prompt 13: Teach it back in three levels

Explain [topic] three times: once in 50 words for a patient, once in 100 words for a medical student, and once in 150 words for a resident who will ask me follow-up questions. After the third, ask me two of those follow-up questions and wait for my answers.

Prompt 14: Ten-minute morning retrieval

Give me 5 rapid-fire questions on [yesterday's topic], one line each, mixed formats (one number, one next-step, one mechanism, one contraindication, one differential). I will answer in one line each. Then grade me and stop. Do not explain unless I ask.

Part 3: On the wards and in clinic

Rule: the AI helps you prepare and reflect. It never touches a real patient's identifiable information, and it never replaces the supervising physician's decision.

Prompt 15: The presentation script

I am presenting a [new admission / consult / clinic follow-up] in [specialty] to a senior resident. Here is the de-identified case: [details]. Write a presentation script of at most 90 seconds spoken, in the order: one-line summary, history that matters, exam that matters, investigations, assessment with a differential of three, plan. Cut anything that does not change the plan. Then list the three questions the senior is most likely to ask after I finish.

Prompt 16: Pimp question prediction

Tomorrow I am scrubbing on a [procedure] with [attending's stated interest, if known]. List the 12 questions a surgeon is most likely to ask a student during this operation, in the order they would come up during the case. Do not answer them. I will answer, then you grade.

Prompt 17: Pre-operative briefing

Explain [procedure] to me as a student who will first-assist: the indication, the key anatomy in the order it is encountered, the five steps of the operation, what the first assist does at each step, the two most common complications and how they are recognized. Under 400 words.

Prompt 18: Consult question sharpening

The ward has asked [specialty] to see a patient for [reason as written in the consult]. Rewrite that into the precise clinical question the consulting team probably means, list the three things I must find out before calling, and give me the one-sentence opening line for the phone call.

Prompt 19: Note improvement (no patient data)

Here is a template note I wrote for a fictional patient with [condition]: [paste the note with no real identifiers]. Tighten it: remove anything that does not inform the next reader, put the assessment and plan in the order a covering physician needs at 3 a.m., and flag anything that reads as uncertain or hedged. Return the improved note and a three-line list of what you changed and why.

Prompt 20: Discharge counselling script

Write what I should say to a patient going home after [procedure or admission] in plain language at a grade 6 reading level: what to expect, what is normal, the three things that mean come back now, and one thing patients commonly get wrong. Under 200 words spoken. Then ask me to say it back to you and correct anything I miss.

Prompt 21: Feedback decoding

My attending said this about me today: “[the comment]”. Translate it into the specific behaviour they observed, the behaviour they wanted instead, and one concrete thing I can do tomorrow that they would notice. Assume the feedback was fair.

Prompt 22: The end-of-rotation reflection

Here is what I saw and did on my [specialty] rotation: [list]. Draft a 150-word reflection for my portfolio that names one specific case, what I learned from it, and how it changed what I will do next. No clichés about growth or passion. Then list two things I should ask a mentor about before leaving the rotation.

Part 4: Exam preparation

Rule: generated questions are for practice, not for learning new facts. If a generated question teaches you something, verify it before you believe it.

Prompt 23: Single-best-answer generator

Write 5 single-best-answer questions on [topic] at the level of [exam name], each with a clinical vignette of 3 to 5 sentences, a focused question, five options, and no answer shown. Vary the question type: one diagnosis, one next investigation, one management, one mechanism, one complication. After I answer, reveal the answer with an explanation of why each wrong option is wrong. Flag any numeric threshold you used with [check].

Prompt 24: Distractor analysis

Here is a practice question I got wrong: [paste question, options, my answer, correct answer]. Explain why the correct answer beats my choice in one sentence, then explain what a student who picked my answer was probably thinking, and what single fact would have separated the two.

Prompt 25: Mock oral examination

Act as an examiner for the [exam name] oral examination in [specialty]. Present me one case as a short stem, then ask me questions one at a time, waiting for each answer, escalating in difficulty as I answer correctly and probing when I hesitate. Be strict and neutral. After 8 questions, stop and give me a structured score out of 10 with the two weakest moments quoted back to me.

Prompt 26: Weak-spot finder

Here are my results from the last [number] practice questions by topic: [paste topic and score list]. Identify the two topics where more study would raise my score the most, explain why those and not the lowest-scoring topic, and give me a 45-minute plan for each.

Prompt 27: Guideline to question set

Here is a section of a clinical guideline: [paste text]. Write one question for every recommendation in it, phrased the way an exam would test it (what is the next step, what is recommended, what is not recommended). No answers. Then list the recommendations that changed from older versions if you know them, marked [check].

Prompt 28: Image and figure interpretation practice

Describe, in words only, a [type of imaging or figure] showing [condition] as an exam would present it, without naming the condition. Ask me what it shows and what I would do next. Then reveal the answer and the three findings I should have named.

Prompt 29: The 20-minute cram sheet

I have 20 minutes before an exam on [topic list]. Give me a one-page cram sheet: the 15 highest-yield facts, formatted as short lines, grouped by topic, hardest-to-remember first. No sentences longer than 12 words. Mark numbers with [check].

Prompt 30: Mnemonic that does not lie

I need to remember [list]. Offer three mnemonics, and for each one tell me what it gets subtly wrong or leaves out, so I know its limits. Then recommend the one to use.

Prompt 31: Explain my wrong reasoning

I answered [my answer] to this question: [paste]. Before telling me the correct answer, reconstruct the chain of reasoning that leads to my answer, find the exact step where it breaks, and only then give the correct answer with the corrected step.

Prompt 32: Spaced question recycling

Here are the questions I got wrong this week: [paste].
Rewrite each as a new vignette that tests the same concept with different details, so I cannot answer from memory of the original. No answers until I respond.

Part 5: Reading the literature and guidelines

Rule: the AI summarizes; you judge. Always read the abstract and the methods yourself before trusting any summary.

Prompt 33: Structured paper read

Here is a paper: [paste abstract and methods, or the full text if allowed]. Give me: the question in one sentence, the design in one sentence, the population, the primary outcome and its result with the confidence interval, the two biggest limitations, and whether the conclusion in the abstract is supported by the result. Then ask me one question that tests whether I read the methods.

Prompt 34: Guideline delta

Compare these two versions of a guideline recommendation: [paste old and new]. State exactly what changed, what evidence the newer version cites for the change if visible, and how the change alters what a clinician does. If nothing substantive changed, say so.

Prompt 35: Statistics in plain language

This paper reports [paste the statistic, for example a hazard ratio with confidence interval, or a number needed to treat]. Explain what it means for one patient in front of me, in three sentences, then tell me one way this number could mislead.

Prompt 36: Journal club preparation

I am presenting [paper] at journal club. Build me a 5-minute talk outline (background, question, design, result, critique, what it changes), then list the four questions a senior resident is likely to ask about the design and the two about the applicability to our patients.

Prompt 37: Evidence hierarchy check

For the claim “[claim as stated by an attending or a textbook]”, tell me what the best available evidence type would be, what evidence you are aware of, how confident a careful clinician should be, and what I should search to confirm it. Mark anything from memory with [check].

Part 6: Maintenance and keeping the AI honest

Rule: the system only works if you audit it. Ten minutes a week.

Prompt 38: Weekly audit

Here is what I studied this week and how each session went: [list]. Tell me which activities were retrieval (I produced the answer) and which were passive (I read or watched). Give me a ratio. If passive is over half, restructure next week's plan to flip it.

Prompt 39: Spaced review schedule

Here are the topics I have covered with the date I last reviewed each: [list]. Build a review schedule for the next 30 days using expanding intervals (1, 3, 7, 14, 30 days), one topic per day, prioritizing the ones I marked weak. Output as a table I can paste into my calendar.

Prompt 40: Catch the AI

Earlier you told me: "[paste a factual claim the AI made]". Argue against yourself: what is the strongest case that this claim is wrong, outdated, or context-dependent, and how would I verify it in under five minutes? Be specific about which source to check.

Appendix A: A worked week

Monday, before clinic: Prompt 14 on last Friday's topic. Evening: Prompt 6 on today's chapter, answer the 12 questions in a notebook, grade.

Tuesday, OR day: Prompt 16 the night before, answer the 12 predicted questions aloud in the shower. Post-op: Prompt 11 on the case you scrubbed.

Wednesday, teaching day: Prompt 33 on the journal club paper. Evening: Prompt 23, five questions, timed.

Thursday, clinic: Prompt 15 for your first presentation. Evening: Prompt 12 for anything you got wrong this week.

Friday: Prompt 38 weekly audit, then Prompt 39 to set the review schedule. Weekend: Prompt 25 mock oral, one case, 20 minutes, then close the laptop.

Appendix B: The three ways students misuse these prompts

1. **Asking for the answer with the question.** Every generator prompt says “no answers until I respond” for a reason. If you strip that line, you have a reading app.
2. **Trusting a number.** The [check] flags are the most important characters in this pack. An assistant that says “PSA over 4” and one that says “PSA over 3 in high-risk men” are both confident. Your guideline decides.
3. **Feeding it patient data.** Nothing identifiable, ever. De-identify before you paste, or describe the case in the abstract. Your institution’s privacy rules apply to an AI window exactly as they apply to a text message.

Appendix C: Licence and honesty

You bought this for your own use. Share the method freely; do not resell the pack. The prompts were written and tested by the author and are original. Nothing here is medical advice; it is a way to study. When a prompt and your supervising physician disagree, your supervisor is right.

Karim Sidhom, MD. Urology resident, University of Manitoba.
hipposurgeon.com