

Sig Codes Cheat Sheet

TK	Take
G	Give (use for kids or pets, not TK)
T / C	Tablet / Capsule
PO	By mouth
QD	Every day
BID	Twice a day
TID	Three times a day
QID	Four times a day
QAM	Every morning
QPM	Every evening
QHS	Every night at bedtime
AC	Before food (ante = before)
WC	With food
PC	After food (post = after)
UTD/UD	As directed
PRN	As needed
Q#H (eg Q6H)	Every # hours (eg every 6 hours)
OU – OS – OD	Into Both Eyes / Left Eye / Right Eye
AU – AL – AD	Into Both Ears / Left Ear / Right Ear
SL	Under the tongue
GTT / GTTS	Drop / drops
ADM	administer

Examples

TK 1 T PO QD = take 1 tablet by mouth every day

ADM 2 GTTS OD BID = administer 2 drops into the right eye
twice a day

PTCB Test Guide!!

Note: it has been about 5 years since I took the PTCB exam and they have changed some things about it. This list is based off the new scoring guide (found on the last page), luckily they took out some hard and useless stuff and also standardized the percentages for each category (when I took it, it was a random mix for each test taker). So now you know exactly what to prioritize in studying!!

Another note: My original Walgreens dragged its feet with me when it came to being a Pharmacy Technician Apprentice, and I've seen some apprentices here at this store struggle with the same problem. It absolutely sucks that this company will hire people under the title "apprentice" and then throw them on the register all day with 0 support or mentorship, and VERY little time to complete the training modules (and there is a very clear bias for those that do get to have time for learning but that's a conversation for another day). Within the first 4 months of working for Walgreens, I decided to find a separate course for learning the material. I used RxTechExam.com and it's \$250, self-paced, and fully online. Most people finish the course within 6-8 weeks according to their website (I can't remember exactly how long I took but it was somewhere around there). So my best advice to you is to pay for your own course (since you'll likely never get the time to learn through Walgreens alone). But then make Walgreens pay for the exam itself (also like \$200-300 or so).

Links and Resources

Course I used	RxTechExam.com
Official Content Outline	tinyurl.com/2s3t76pd
Top 200 Drugs Quizlet	https://tinyurl.com/yw33dc32
5 Free Practice Tests	https://tinyurl.com/mv9j4zvn
High-Alert Medications	https://tinyurl.com/35m4fa6e
Library rentals (last two in list – gotta place hold)	https://tinyurl.com/ua5cet62

Overviews from PTCB Test Prep .com (I didn't use this personally but now that I found it, it's pretty helpful)

Medications Section	https://tinyurl.com/5n6vdcvy
Federal Requirements	https://tinyurl.com/56a2tf45
Safety/Quality	https://tinyurl.com/mt4nu6k4
Order Processing	https://tinyurl.com/4up9vmdv

another patient to dispense it to, then it doesn't go with the regular expired drug return, it has to go to hazardous waste too. No idea why, since it's not like anyone ever touched it and it's the exact same as the stock bottle it came from.

If it's non-dispensable (patient return if like, all the pills were broken or messed up somehow) or expired, then it should go into hazardous waste.

The ultimate goal I want to see for all full-time techs at this store is to get certified, get a few years' experience/Senior Tech title for your resume, and then GET OUT OF THIS PLACE!!!! I've been here 5 years and let me tell you, you will find MUCH higher pay for MUCH less work outside of chain pharmacies. For Example, Northwestern and Cook County Hospitals pay between \$24-32 an hour for certified techs. This is just the stepping stone but you gotta put in the work to get to a better place!! I know \$250 can be steep for an upfront purchase, but in my opinion it was worth the money, especially since you need to pass some kind of course to even apply for the exam and who knows how long it'll take to finish the Walgreens course, or how well prepared it makes you.

If you do happen to use RxTechExam pls let me know because I just checked and they have a referral code for people who have used them (me) where they take \$50 off the price for you and then also give me \$50 back lol. Also if you don't have a laptop I would recommend going to the library to use a desktop over using a mobile device, but maybe it's doable on there? Especially since it's been 5 years idk if they upgraded their website to work on mobile.

Also also: this is a lot of info but it is still not comprehensive!!! This is just off the top of my head with a little bit of research but again, you'll be best prepared with a real prep course!

Medications: 35% of test

1.1 – Generic/Brand Names, Classifications

Top 200 Drugs' brand and generic list QR code will be on last page!!

They "expect" you to know the brand and generic names for the top 200 drugs (not like, list off all of them in the top 200 but like, if they give you the brand name of one, you need to know the generic name for it.

Also need to know their use – sample question is "A patient needs her cholesterol medication. Which one is it?" with options being Losartan, Atorvastatin, Sertraline, Amoxicillin (correct answer is Atorvastatin)

They say you should also know the specific class of

medications, like Lisinopril is an ACE Inhibitor, but to be honest I didn't have a single question like that, and it's really more of the pharmacist's job. But study that too just in case, just lower priority than the rest of the stuff.

1.2 – Therapeutic Duplications

Goes with the last category – if a patient has two

medications to treat the same issue it should be flagged for the pharmacist to review (computer does that for us though – that's some of the DUR caps). Sometimes you can tell by

Lot number: what batch of medication this was made in by the factory. So if there's a recall it'll be the entire lot number since they were all cooked in the same bowl/mixer.

Expiration date: kinda obvious lol don't sell past the

expiration date (oh and also if it's only month and year then it's good till the LAST day of that month)

4.4 – Return To Stock for Dispensable/Non-dispensable/Expired Meds

Return To Stock (pt never picked up) meds should have

their identifying information covered and then kept in the amber vial – never put directly back into the stock bottle on shelf!! And when you fill a script for someone else using that drug we try to use the amber vials first, the barcode scans on our machines now.

Actually one time at another store someone must have

poured an amber vial back into the stock bottle once and it was so irritating because they dumped a 90-count of Lisinopril 30mg into the stock bottle of Lisinopril 20mg and they're the EXACT same color and shape, just that the 30mg is like, 1 millimeter bigger than the 20mg, and I had to sort through the entire 500 count bottle to ensure I got all of them.

Also: if the return-to-stock amber vial sits on the shelf for so long that it ends up expiring without us ever having

than 1) then make sure there's a leading zero (eg 0.5 mL instead of .5 mL), but if it's a decimal greater than 1 then no leading zero. See below for summary:

Correct	Incorrect
0.5	.5
5	5.0
1.5	01.5

4.2 – Equipment and Supplies Needed for Drugs

Inhalation: Inhalers like the Albuterol ones are fully complete and don't need supplies (spacer is optional for small kids), but "nebulizing solutions" need the nebulizer machine, mask, and tubing.

Insulin: pen needles, alcohol swabs, fridge.

Diabetic testing: glucometer (machine), lancets, test strips, alcohol swabs. For Continuous Glucose Monitoring (CGM) like Dexcom or Freestyle, it's the sensors and reader (reader can be an app on your phone though).

4.3 – Lot Numbers/Expiration Dates/NDCs

Components of NDC:

- First part: 5 numbers, state the manufacturer
- Second part: 4 numbers, state drug/dose
- Third part: 2 numbers, state package size

the name (like Atorvastatin and Rosuvastatin) but some are different classes like Losartan and Amlodipine.

1.3 – Drug Interactions

Don't need to know the list of all drug interactions, but rather the 3 main types: Drug-Drug, Drug-Food, and Drug-Condition. Two other not-as-common ones are Drug-Nutrient and Drug-Laboratory.

Drug-Drug will be most relevant for the test – can't think of an example off the top of my head though (similar to therapeutic duplication, or on the flip side, if one causes the opposite effect of the other idk).

1.4 – Numbers stuff

Official title of this sections is: strengths/doses, dosage forms, routes of administration, special handling and administration instructions, and duration of drug therapy.

Know Roman Numerals up to 10: I, II, III, IV, V, VI, VII, VIII, IX, X (also good to know for the super bowl)

Strengths/doses may ask some math like "if a solution comes in 250mg/5 mL and the patient needs a dose of 375mg, how many mL should they take?"

$$375 \text{ mg} * \frac{5 \text{ mL}}{250 \text{ mg}} = 7.5 \text{ mL}$$

Order Entry and Processing: 22.5%

4.1 – Math Stuff

Know how to calculate day's supply from directions and quantity. Pills are generally easy (1 tablet once a day with quantity 90 tablets = 90 days)

Insulin Day's Supply: Start with the quantity in mL,

multiply it by how many units in one mL, then divide by the number of units per injection, then divide by the number of injections per day.

$$3 \text{ mL} * \frac{100 \text{ units}}{1 \text{ dose}} * \frac{1 \text{ mL}}{15 \text{ units}} * \frac{2 \text{ doses}}{1 \text{ day}} = 10 \text{ days}$$

The trick to these calculations is making sure the units on all these fractions cancel out! If one is at the top, cancel it by making it on the bottom for the next part.

You may also see these for kids liquid Ibuprofen/Tylenol,

which are dosed based on weight. Like, kid weighs 40

kilograms, the dose is 5 mL per 10 kg (TOTALLY MADE UP

DOSE IDK WHAT THE REAL DOSE IS), how much should you

give them?

$$40 \text{ kg} * \frac{5 \text{ mL}}{10 \text{ kg}} = 20 \text{ mL}$$

Best Practice for decimals: if it's a whole number, don't do a decimal (eg 5 mL instead of 5.0 mL), if it's a decimal (less

Work backwards by first figuring out: what unit will the final answer be? The question says mL, so then take the other

two pieces of info and manipulate them to be multiplied or divided in a way that the units cancel out to get to the

answer you need. This is gonna be similar to the insulin

calculations in 4.1!

Dosage Forms: tablets (anything that says

Delayed/Extended Release or Enteric Coated should NOT be crushed or split!); capsules don't get split either, liquid

will have the math like above, that's all I can think of.

Routes of Administration/Instructions: Idk what they want

here other than what's already been said, like

tablets/capsules are taken by mouth, insulin/other

refrigerated liquids are mostly injected, etc.

Special Handling: Hazardous Drugs are separated into H1

and H2 – on leaflets if you look at the drug location (bottom

center), it'll say H1-Alpha or H2-Alpha. H1 is more serious,

H2 is still a bit serious, and both require either their own

separate cleaning tray or to be cleaned after every

hazardous drug. Common hazardous drugs are cancer

meds (Methotrexate/Capecitabine), Hormones

(Estradiol/Spirolactone/Progesterone).

Duration of Drug Therapy: basically how long a patient is

prescribed a medication to achieve the desired therapeutic

effect. For example most antibiotics will be a 1-2 week

3.6 – Infection Prevention/Cleaning Standards

Counting tray should be wiped when it's dusty (and I be on peoples necks about that bc why are we getting Norco dust all over other peoples meds????) and also wiped after every hazardous drug (Spironolactone especially here at this store in my opinion, bc that's an anti-androgen so it'll literally forcibly feminize our male patients when they're not prescribed it).

course, cholesterol/blood pressure meds are basically for life, etc.

1.5 – Side effects, allergies, adverse effects

There'll likely be a question like "Patient gets a script for Amoxicillin, their profile states they have an allergy to Penicillin, what should you do?" and the answer will be alert the pharmacist (our computer will do this for us automatically in the real job btw).

If someone has an adverse effect to a vaccine gets reported to **VAERS** (Vaccine Adverse Effect Reporting System). (like worse than just arm pain, like SIRVA (Shoulder Injury Related to Vaccine Administration, which means your arm is like permanently fucked up forever because the shot was done wayyy too high up) or idk like it's not like they'll die from it but who knows? If they do die then it'll be

Regular medication Adverse Effects get reported to **MedWatch**, ran by the FDA just like VAERS.

1.6 – Indications (what it's used for)

Same thing as Classifications as far as I know?? Tbh the medication stuff was best done with flash cards, I bought a 100 pack of them and cut them in half, then on one side I had the name of each med and on the back I wrote the indication, class, and normal formulation (tablet, liquid etc.)

1.7 – Drug Stability

Things like tablets are good as far as their expiration date, but reconstitutable things like the liquid Amoxicillin are only good for (idk actually, like 20 days??) after being mixed, and how it's gotta be kept in the fridge. Not all liquid antibiotics need to be kept refrigerated but definitely remember that Amoxicillin does.

1.8 – Proper storage

Tablets/Capsules should be kept at 68-77 degrees, in a dry place, preferably out of sunlight.

Insulin should be kept in fridge, at 36 to 46 degrees. It can be left outside of fridge (59 to 86 degrees) for up to 28 days then it goes bad, but anything above 86 degrees ever and it's unusable.

Idk what section this would go under but I very distinctly remember needing to know that the Orange Book is the FDA list of Therapeutic Equivalence, or generic drugs that are the same as each other. There's also a purple book but I can't remember what makes them different? Just looked it up and they seem the same.

3.3 – Pharmacist Intervention

(square) barcodes which also have the expiration, lot and serial number.

Per ptcbtestprep.com : drug utilization reviews (DURs), identifying adverse drug events (ADEs), recommending appropriate OTC products, managing therapeutic substitutions, monitoring medication adherence, addressing allergies or drug interactions, and providing post-immunization care.

3.4 – Event-reporting Procedures

I think this is basically the same as 1.5 covering VAERS and MedWatch idk?? This whole test outline really seems to repeat itself a lot.

3.5 – Types of Rx Errors

In Data Entry: Wrong patient, drug, dose (also dosage form like Extended vs Immediate Release), directions, prescriber, omission (didn't dispense or missed part of directions – like someone comes in, has 3 scripts in progress, we get them ready and sell them but as soon as they leave we see another one in the F1's and they're already gone – we missed/omitted that one)

In real-life filling: expired med, also wrong drug.

Patient Safety/Rx Quality: 23.75%

3.1 – High-alert/risk meds, Look Alike Sound Alike

Look Alike, Sound Alike (LASA) medications are like Prednisone/Prednisolone, or Trazodone/Tramadol, where if you don't look at the name closely enough you could get them mixed up. Most bottles will use Tall Man lettering, where they'll spell them like TrazoDONE/TramaDOL or PredniSONE/PrednisoLONE so you can see it more clearly.

High Alert meds: anticoagulants (blood thinners like Eliquis, Xarelto, Clopidogrel, Warfarin), Adrenergic agonists/antagonists (epinephrine/ephedrine increases adrenaline, anything ending in -olol lowers it), chemotherapy drugs, Insulin, sedation meds (benzos etc.), opioids, sulfonylurea hypoglycemics (glipizide, glyburide). Full list on links page at end of this zine.

3.2 – Error Prevention Strategies

As mentioned in other places: Tall Man Lettering, DUR (Drug Utilization Review) flags therapeutic duplications/too-high doses etc.

When I started at Walgreens we only had scanners capable of the one-dimensional (strip) barcodes which only have the NDC, but now we're switching to the two-dimensional

Federal Requirements: 18.75% of test

2.1 – Storage, handling and disposal

It's already been said elsewhere in this doc but yeah 68-77 degrees, dry storage, fridge for fridge things, hazardous drugs need to be handled carefully/cleaned tray after, PPE is gloves for Hazardous drugs btw ohhh actually idk if you've done the yearly Hazardous Drugs PPL in the learning portal here but actually there's specific things like some drugs need two pairs of gloves but idk.

Disposal: so if it's an expired drug in the original (stock) bottle, it gets sent back to our warehouse (or warehouse's second company, Inmar) for a credit. But if it's in a patient return-to-stock bottle then it's hazardous waste. If it's spilled or broken, also hazardous waste. If it's P-Listed (only drug I know is Warfarin) it needs to go in a special P-Listed tote (and I mean the drug, the original bottle, any patient return-to-stock bottle) because Warfarin is literally rat poison.

2.2 – Controlled Substances

No refills on C-II substances – and Rx expires after 3 months of being written (that's why doctors will write 3 separate Norco or Adderall scripts at a time).

C-III through C-V can have up to 5 refills, and the whole script expires after 6 months.

2.3 – Change in inventory of controlled substances

To order or return expired C-II drugs, the pharmacy must fill out the DEA form 222 (angel number for harmony and balance). This is the only form we need to know about as far as I know.

2.4 – Sulfated and REMS

Pseudoephedrine: you can buy up to 3.6 grams per day, and 7.5 grams within a 30-day period.

The only REMS (Risk something Mitigation Strategies?) drug we deal with is isotretinoin (branded generic names include Claravis, Amnesteem, Zenatane) because it causes crazy birth defects so they make everyone take a pregnancy test and pinky promise they'll use two forms of protection. And we have to log the exact NDC and quantity dispensed in

IPledge.

Oh I also just read one of the med guides for

Mycophenolate the other day and apparently if you get pregnant they say to call your doctor immediately but don't stop taking it, and it's a REMS situation. But like, if you've got the choices of: stop taking the medication to protect the fetus from birth defects, but then die of kidney rejection within weeks (thus still causing the fetus to die as well), or continuing the medication and giving the fetus birth

2.5 – Medication Recalls

Recalls are done by lot number (as mentioned in section 4.3). The manufacturer and FDA is responsible for contacting the patients, not the pharmacy, but often if the pharmacy is aware it'll contact them too.

2.6 – Drug Supply Chain Security Act (serial numbers, track and trace)

If a drug is suspected to be counterfeit (idk how you can even get a counterfeit drug from our warehouse ABC), the procedure is to quarantine the product and "begin investigation" which in our case is to just notify the Rx Integrity Team (automatically done via RxI when checking in the order, also this is a Walgreens specific thing but I'm sure other pharmacies have it too). That's the same team that investigates unexpected changes in inventory count for controlled substances.