

Patient safety: Prescription and orders – Handout/Exercise Booklet

Session objectives

- Write prescriptions per the Alberta College of Pharmacists Standards of Practice
- Demonstrate modifications to prescription-writing for pediatric patients by including a patient’s weight and calculating weight-based doses
- Identify tools to look-up prescription considerations for patient contexts such as liver disease, renal disease, pregnant, and breastfeeding patients
- Identify methods to cross-check drug interactions
- Locate medications under the Triplicate Prescription Program
- Discuss pitfalls when writing prescriptions and physician orders that may lead to medical error
- Discuss safe practice approaches to writing prescriptions and physician orders
- Identify abbreviations and acronyms that should be avoided when writing physician orders to prevent medical error
- Write an admission order, using the mnemonic “AD-DAVID”
- Write legibly on all prescriptions and physician orders

Examples

Alberta Health Services Prescription

South Health Campus
4448 Front St SE, Calgary, AB T3M 1M4
Phone 403-956-1111

Date (yyyy/mm/dd) 2017/03/06

Patient Name John Doe

Patient Address XXX 10th St NW, Calgary

Allergies None

DOB 01/01/1980

Rx Tylenol # 3 1-2 tabs PO

Q4-6 hr PRN for pain

Dispense # 30 (Thirty) tabs

Safety Closure Container Yes No Refill ϕ times

Physician Signature *Signature*

Print Name Dr. Phil McGraw MD.
pager 000000
phone 403XXXXXXX

Annotations:

- Date of Rx
- name and address of the patient;
- Drug name
- Route
- Indication
- Quantity of drugs to be dispensed
- Refill. Specify interval if + refill.
- Prescriber signature
- Prescriber name
- Prescriber contact (pager or phone) In case pharmacy have questions
- Direction for use/frequency Prn = as needed
- Dosage

calgary health region Prescription

Alberta Children's Hospital
3888 Shaganappi Trail NW, Calgary, Alberta T3B 6A8
(403) 955-7211

Date (yyyy/mm/dd) 2017/03/06

Patient Name Tom Anderson

Patient Address 52 100th St NE, Calgary

Allergies None

DOB 2014/02/02

Rx Amoxicillin (90mg/kg/day PO divided 9/12h)

$15 \times 90 = 675 \text{mg}$ PO liquid

9/12h x 10 days for acute otitis media

Safety Closure Container Yes No Refill ϕ times

Physician Signature *Signature*

Print Name Dr. Patch Adams MD
pager
PH

Annotations:


- Weight of the patient
- Weight based dosing per day Divided by ___ interval
- Liquid formulation for kids Who can't swallow pills
- Show your calculation

Resources

- RxTx, Lexicomp, LactMed (<http://intro.ucalgaryblogs.ca/electronic-tools/>)
- Pharmacist
- PADIS
 - o Regional toxicology centre that can answer questions regarding medications/poisonings
 - o <http://www.albertahealthservices.ca/topics/Page11975.aspx>
 - o [1-800-332-1414](tel:1-800-332-1414)
- Antibiotics
 - o Spectrum (has both adult and pediatric version)
 - Calgary local antibiotic stewardship app by local infectious disease experts
 - <http://www.spectrum.md/>
 - o Bugs and Drugs (<http://www.bugsanddrugs.org>)
 - o Pediatric infectious diseases (eg. pneumonia, acute otitis media) – can look up CPS (Canadian pediatric society) guidelines
 - o IDSA guidelines http://www.idsociety.org/IDSA_Practice_Guidelines/
- Drug pricing
 - o <https://www.acfp.ca/wp-content/uploads/2017/03/ACFPPricingDoc2017.pdf>

Prescription/Orders exercises

1. You are on General Surgery. A 55 year old male (John Peterson, 123 1st street NE, Calgary. DOB 1962/02/15) is to be discharge home post-appendectomy. He has no allergies. His pain has been well managed on hydromorphone 1mg PO q4h prn. You are asked to write him a prescription for pain control. Your resident asks you to help write out a prescription for 30 tablets of Tylenol 3. Practice writing this.

 Alberta Health Services		Prescription
South Health Campus 4448 Front St SE, Calgary, AB T3M 1M4 Phone 403-956-1111		Date (yyyy/mon/dd)
Patient Name		
Patient Address		
Allergies	DOB	
<div style="font-size: 2em; font-weight: bold; margin-bottom: 10px;">R</div>		
Safety Closure Container <input type="checkbox"/> Yes <input type="checkbox"/> No Refill _____ times.		
Physician Signature		
Print Name		

Stick on patient label or write patient info
 John Peterson, 123 1st Street NE, Calgary.
 DOB 1962/02/15. MRN ###.
 #####.PHN#####

104314(2012/09)

2. You see a 2 year old, immunization-up-to-date boy, in the Emergency Department with fever (Ben Smith, 321 3rd street NW, Calgary. DOB 2015/01/01). You did a thorough assessment and work up. Ben is well-appearing, and you think it's a simple viral infection. You reassure the parents the fever is not dangerous, and if Ben becomes uncomfortable, they can treat him with antipyretics. You discharge patient discharge home with good return to ED precautions. He has no allergies. His weight is 15 kg. Write down the doses and frequency for Advil or Tylenol for Ben, as a reference for his parents.

Alberta Health Services Prescription

South Health Campus
4448 Front St SE, Calgary, AB T3M 1M4
Phone 403-956-1111

Date (yyyy/mon/dd)

Ben Smith, 321 3rd street NW, Calgary.
DOB 2015/01/01.
MRN #####.PHN#####

Rx

Safety Closure Container Yes No Refill _____ times.

Physician Signature

Print Name

104314(2012/09)

3. Shelly Johnson, 22 year old female (850 Highland Drive, Calgary. DOB 1995/03/06), presents to your Family Medicine clinic with a 1-day history of dysuria and polyuria. She has no STD risk factors. No vaginal discharge or itchiness. Her urine test in your office shows positive leukocytes and nitrites and a negative pregnancy test. You diagnose her with simple uncomplicated cystitis/UTI and decide to treat her with antibiotics. She has no allergies.
- Choose an antibiotic, and write the prescription for her.
 - What are some considerations if Shelly is pregnant?

Alberta Health Services Prescription

South Health Campus
4448 Front St SE, Calgary, AB T3M 1M4
Phone 403-956-1111

Date (yyyy/mon/dd)

Shelly Johnson, 850 Highland Drive,
Calgary. DOB 1995/03/06. MRN
#####.PHN#####

Rx

Safety Closure Container Yes No Refill _____ times.

Physician Signature

Print Name

104314(2012/09)

4. A 9 year old previously healthy, vaccination-up-to-date girl (Karyn O'Brien; 882 Plainsview Drive SE, Calgary. DOB 2008/01/01.) presents to your family medicine clinic a second time for the same complaint of right ear pain. She's been having worsening right ear pain for 4 days. You plan to treat her with amoxicillin for acute otitis media. Her weight is 55kg. She has no allergies. She had recent antibiotic exposure for treatment of a UTI within the past 3 months. Write her a prescription for amoxicillin.

Alberta Health Services Prescription

South Health Campus
4448 Front St SE, Calgary, AB T3M 1M4
Phone 403-956-1111

Date (yyyy/mon/dd)

Karyn O'Brien; 882 Plainsview Drive SE, Calgary. DOB 2008/01/01. MRN #####.PHN#####

Rx

Safety Closure Container Yes No Refill _____ times.

Physician Signature

Print Name

104314(2012/09)

5. You see a 45 year old male (Jack Daniels, 100 Whiskey street NE, Calgary. DOB 1972/03/04) with shingles (herpes zoster) in family medicine clinic. You plan to treat him with Valtrex (valacyclovir). His past medical history includes chronic kidney disease (eGFR ~ 20) and liver cirrhosis. Write your prescription.

Alberta Health Services Prescription

South Health Campus
4448 Front St SE, Calgary, AB T3M 1M4
Phone 403-956-1111

Date (yyyy/mon/dd)

Jack Daniels, 100 Whiskey street NE, Calgary. DOB 1972/03/04. MRN #####.PHN#####

Rx

Safety Closure Container Yes No Refill _____ times.

Physician Signature

Print Name

104314(2012/09)

Example admission order

Case: 76 year old female with history of HTN and T2DM admitted to hospitalist with community acquired pneumonia and AKI

- Admit to Hospitalist service under Dr. Peterson
- Diagnosis: community acquired pneumonia / AKI
- Diet – Diabetic diet
- Activity level – AAT (activity as tolerated)
- Vitals Q4H
- Investigations, IV, Ins and outs
 - CBC/lytes/Cr q AM
 - IV NS @ 100mL/hr.
 - Ins and outs q shift.
- Drugs (Any treatment meds + BE SAD PP)
 - Oxygen to keep O2 sat > 90%
 - Bowel routine – PEG 3350 17g PO daily PRN for constipation
 - Emesis – zofran 4mg PO/IV q8h PRN for nausea
 - Sleep – zopiclone 5mg PO qHS PRN for insomnia
 - Antibiotics – ceftriaxone 1g IV daily for 7 days, azithromycin 500mg PO daily x 3 days
 - DVT prophylaxis – enoxaparin 40mg SC daily
 - Pain – Tylenol 1g PO q6h PRN
 - Pre-admission medications (see MedRec) – Amlodipine 5mg PO daily (on hold for soft blood pressure), Metformin 500mg PO BID (continue)

Admission order practice

50 year old male, with history of hypertension on chlorthalidone 12.5mg PO daily, is being admitted to general surgery for acute appendicitis. Your attending is Dr. Jones. Your senior resident wants the patient on 125mL of NS maintenance fluid and ceftriaxone and metronidazole for peri-operative antibiotics. No further investigations are needed as they were all completed in the ER. The senior resident doesn't want any bowel routine or sleeping aids in the pre-op period. Write the admission order.

Admission orders

- Admit to ____ service under Dr. ____ (Attending)
- Diagnosis ____
- Diet
- Activity level
- Vitals q__h
- Investigations/IV/Ins and outs
- Drugs (Treatment + BE SAD PP)
 - Bowel routine
 - Emesis
 - Sleep
 - Antibiotics
 - DVT prophylaxis
 - Pain
 - Pre-admission medications (MedRec)

Resources and cheat sheet for prescription and orders

Common oral analgesics (non-triplicate)

Drug	Dose	Side effects/cautions
Tylenol # 3 (acetaminophen 300mg, caffeine 15mg, codeine 30mg)	1-2 tabs PO q4-6h prn	Constipation, sedation (avoid codeine in pediatric due to variable metabolism)
Tramacet (acetaminophen 325mg/tramadol 37.5)	1-2 tabs PO q4-6h prn	GI symptoms, confusion, headache. Costly.
Tylenol	325-650mg PO q4-6h prn 1g PO q6h prn (max 4g per day) 15mg/kg PO q4-6h prn (peds)	Max 2g in patients with liver disease. Risk of hepatotoxicity in overdose.
Advil	200-400mg PO q4-6h prn 10mg/kg PO q6-8h prn (peds)	Avoid in patients with cardiac, hepatic, or renal dysfunction. Contraindicated in peptic ulcer disease.

Common antiemetics

Drug	Dose	Side effects/cautions
Zofran (ondansetron)	4-8mg PO/IV q8h prn	Long QT
Maxeran (metoclopramide)	10mg PO/IV q6h prn	Prokinetic, avoid in bowel obstruction, also prolong QT.
Gravol (dimenhydrinate)	50mg PO/IV q4h prn	Sedating. Anticholinergic side effects. Avoid in elderly.

Common laxatives

Drug	Dose	Side effects/cautions
Lax-a-day/Miralax (Polyethylene glycol or PEG 3350)	17g powder mix with drink of choice PO once or twice a day prn	Bloating. Electrolyte imbalance.
Lactulose	15-30mL daily (up to tid) prn.	Bloating. Electrolyte imbalance.
Senna	1-2 tabs PO once daily prn	Abdominal cramping.
Glycerin adult suppository	1 supp rectally daily prn	Abdominal cramping, rectal irritation, tenesmus.

Abbreviations to avoid:

<https://extranet.ahsnet.ca/teams/policydocuments/1/clp-dangerous-abbreviations-symbols-dose-designations-ps-08-policy.pdf>