

## **WRHA Pharmacy Program Direct Patient Care Guidelines**

### **Pharmacist Performance Expectations**

#### **Manitoba Renal Program**

**May 2013**

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### **DEVELOPMENT OF THE PHARMACIST PERFORMANCE EXPECTATIONS**

#### **GUIDELINES FOR USE**

#### **Pharmacist Performance Expectations**

##### **Purpose:**

The purpose of these Guidelines is to define performance expectations of pharmacy care that pharmacists will provide to Manitoba Renal Program patient, at any acute care WRHA facility, or St Boniface Hospital under full-staffed [pharmacist] conditions. These performance expectations will establish the “norm” for pharmacist practice. Performance expectations will provide a tool for pharmacists to self-evaluate the quality of the service they provide for Manitoba Renal Program patients and identify opportunities for personal and/or staff development. The performance expectations are viewed currently as the type of practice pharmacists will strive to attain. A phased-in approach for implementation is suggested.

Pharmacists play a key role in medication safety. Prevention and resolution of drug related problems is an essential component for the provision of medications in a safe and effective manner. Prioritization of pharmacist activities should take medication safety into consideration.

In the near future, it is expected that the performance expectations will evolve to standards of practice within the WRHA Pharmacy Program. Standardization of practice activities will help support the pharmacy practice model, assist in the orientation/education of new staff, and assist in the evaluation of staff.

Of note, different priorities exist across the MRP according to the clinical time allotted to the pharmacists who have shared clinical and distribution functions.

**I. Expectations on a regular weekday (see appendix 1 for table for prioritization of activities, please refer to site specific standard operating procedures for further detail):**

A. The pharmacist shall perform the following **core activities** of a fully staffed weekday in order of priority

**1. Attend Manitoba Renal Program clinics (peritoneal dialysis, local centres dialysis, home hemodialysis or renal health) as appropriate at site**

- Organize patients and bloodwork processes as appropriate to site
- Review all clinic patients charts
- Review DPIN for all patients
- For patients seen by a pharmacist, generate best possible medication history, perform medication reconciliation and detailed medication review
- Document in health record any recommendations, suggestions or further patient information required for patients not be seen by a pharmacist as appropriate to site
- Additional processes per site

**2. Attend multidisciplinary patient care rounds as appropriate (different models at different sites).**

- Detailed discussion with team about patients covered on rounds
- Identify admitted patients for pharmacist medication reconciliation on discharge
- Identify patients for pharmacist medication review
- Additional processes per site (e.g. use rounds template)

**3. Discharge (or transfer) medication reconciliation for admitted hemodialysis, peritoneal dialysis, local centres dialysis, or home hemodialysis patients as appropriate or renal health clinic patients as appropriate**

- Reconcile inpatient medications with DPIN and Renal Medication flow sheet
- Write discharge prescription for medications including appropriate medications on the Renal Medication flow sheet and new medications started in hospital. Use professional judgment and contact MD to clarify outstanding issues.
- Have prescription faxed to outpatient pharmacy and copy dialysis unit as appropriate
- Provide patient with medication card and patient counseling (if appropriate)
- Document discharge and any issues in the patient's medical record if appropriate.
- Additional processes per site (e.g. some sites only do discharges for dialysis patients admitted under nephrology, renal health clinic patients usually only for renal medications only and at the request of the MRP team)
- Perform medication reconciliation during discharges, medication reviews, clinic visits, or between clinic visits as required in accordance with the MRP Medication Reconciliation Policy 60.40.09  
[http://www.kidneyhealth.ca/wp/wpcontent/uploads/pdfs/P&P/P&P\\_60.40.09\\_guideline.pdf](http://www.kidneyhealth.ca/wp/wpcontent/uploads/pdfs/P&P/P&P_60.40.09_guideline.pdf)

**4. Review monthly bloodwork for hemodialysis patients as appropriate at site**

- Organize patients and bloodwork processes as appropriate to site and according to site processes

- The Canadian Society of Nephrology (CSN) CANN-NET Anemia Treatment Algorithm for Hemodialysis Patients may be used as a guide to adjust ESA and IV iron doses:  
<http://www.cann-net.ca/current-projects/current-kt-projects#Project4>
  - Additional processes per site (e.g. some sites, dieticians do MBD)
- ***Identify and resolve actual/potential drug related problems*** (DRP's) during discharges, medication reviews, clinic visits, between clinic visits or on medication order review. This is accomplished through review of patient's medication profile, medical record, and review of pertinent laboratory results, patient/caregiver/health professional dialogue, interdisciplinary interaction, and communication with the dispensary / community pharmacy staff, patient/caregiver/health professional as appropriate. Patients may be prioritized according to their severity, at the discretion of the pharmacist.
5. ***Perform detailed medication reviews for patients as appropriate at practice site. Medication reviews are performed for new dialysis patients, on periodic review (q 6 months- 1 year), in preparation for MRP clinic visit (peritoneal dialysis, local centres dialysis, home hemodialysis or renal health) or at the discretion of the pharmacist or request of another health professional. (see list of renal specific DRPs below). Generally, priority patients for dialysis units are new starts to PD/HD.***
- Speak to patient, caregivers, family members and other healthcare professionals as appropriate to obtain the information required for the medication review.
  - Review the most recent medication list (clinic list, Renal Medication flow sheet), DPIN and speak to the patient and caregiver to determine the ***best possible medication history*** (medication list) including herbal and OTC
  - Identify and resolve actual/ potential DRPs (see below)
  - Review patient for ***medication coverage issues***
  - Ensure ***follow up bloodwork*** is ordered as appropriate based on recommendations and changes
  - *Document any medication issues* in the appropriate place: directly in the patient care record or on the Pharmacist Medication Review Template or another place as appropriate to MRP site in accordance with the WRHA Pharmacy policy for documentation.
    - WRHA Documentation in the Health Record Policy  
[http://home.wrha.mb.ca/prog/pharmacy/files/PharmacistDocumentationinaHealthRecord\\_000.pdf](http://home.wrha.mb.ca/prog/pharmacy/files/PharmacistDocumentationinaHealthRecord_000.pdf)
  - Write out medications on a regular ***outpatient prescription as appropriate***.
  - Write refills as requested and as appropriate
  - Provide ***continuity of care*** between facility and community pharmacy as appropriate. (e.g. to facilitate prescription delivery, compliance aid, drug coverage or other issues as required)
  - Liaise with patient, caregivers, family members and other healthcare professionals as appropriate to provide medication related information to or for patients
  - Additional processes per site

*Types of DRP's to assess include but are not limited to (some relevant nephrology references included for each DRP):*

- ♦ Review medications to determine if any drugs require ***renal dose adjustments*** WRHA Pharmacy policy for renal dosing, and standard resources such as Bennett's or Dialysis of Drugs (**labs: creatinine for CKD patients**)

- Bailie GR, Mason NA. *2014 Dialysis of Drugs*. Saline (USA): Renal Pharmacy Consultants. The app is available for \$7.99 USD here:
  - <http://renalpharmacyconsultants.com/>
  - An older 2011 online version is available free here:
    - <http://ukidney.com/nephrology-publications/nephrology-books/dialysis-of-drugs>
- Aronoff GR, Berns JS, Brier ME, Golper TA, Morrison G, Singer I, et al *Drug Prescribing in Renal Failure Guidelines for Adults, 5<sup>th</sup> Ed.* Portland (USA): Book News, Inc.; 2007 <http://kdpnet.louisville.edu/renalbook/>
- WRHA Renal Dosing policy [http://home.wrha.mb.ca/prog/pharmacy/files/RenalDrugDirectiveupdated\\_000.pdf](http://home.wrha.mb.ca/prog/pharmacy/files/RenalDrugDirectiveupdated_000.pdf)
- Matzke GR, Aronoff GR, Atkinson AJ, Bennett WM, Decker BS, Echardt KU.. Drug dosing considerations in patients with acute and chronic kidney disease – a clinical update from KDIGO. *Kidney Int* 2011;(80):1122-37 PMID 21918498 <http://www.ncbi.nlm.nih.gov.proxy2.lib.umanitoba.ca/pubmed/?term=21918498>
- ◆ Review for any medications that are that are ***contraindicated in CKD*** and that should be minimized (e.g. NSAIDS in clinic patients, nitrofurantoin) (**labs: creatinine for CKD patients**)
- ◆ Review for any medications that are ***no longer required in dialysis*** (ie. potassium supplements, sodium bicarbonate, allopurinol etc) for dialysis patients
- ◆ Review patient for medication ***allergies / intolerances*** in accordance with the WRHA Pharmacy policy for documentation
  - WRHA Allergy Assessment Policy <http://home.wrha.mb.ca/prog/pharmacy/files/PharmDocumentationofMedicationAllergiesAugust2006.pdf>
- ◆ Review patient for ***medication adherence*** using DPIN and interview with patient and or caregiver
  - Raymond C, Wazny L, Sood A. Medication Adherence in patients with chronic kidney disease. *CANNT J*, 2011;21(2):47-50 <http://www.ncbi.nlm.nih.gov.proxy2.lib.umanitoba.ca/pubmed/?term=21894841>
- ◆ Review patient for ***drug drug interactions*** (resources include Micromedex, Lexcomp)
- ◆ Review patient for ***adverse drug reactions*** or side effects
- ◆ Review ***anemia*** management. Assess relevant labs, including trends (**labs - hemoglobin, transferrin saturation, ferritin trends**) and most recent EPO/iron therapy (dose, route, duration), and replavite (most recent fill and how/who administered for PD/clinic patients). Evaluate patient for possible EPO hyporesponsiveness, adverse effects. Recommend appropriate adjustments per protocol or pharmacist judgment.
  - Canadian Society of Nephrology commentary on the 2012 KDIGO Clinical Practice Guideline for Anemia in CKD. (2013)
    - <http://www.ncbi.nlm.nih.gov.proxy2.lib.umanitoba.ca/pubmed/24054466>
  - KDIGO Anemia guidelines (2012) [http://www.kdigo.org/clinical\\_practice\\_guidelines/pdf/KDIGO-Anemia%20GL.pdf](http://www.kdigo.org/clinical_practice_guidelines/pdf/KDIGO-Anemia%20GL.pdf)
  - KDIGO Guidelines for CKD Management (2012) [http://www.kdigo.org/clinical\\_practice\\_guidelines/pdf/CKD/KDIGO\\_2012\\_CKD\\_GL.pdf](http://www.kdigo.org/clinical_practice_guidelines/pdf/CKD/KDIGO_2012_CKD_GL.pdf)
  - TREAT Trial <http://www.nejm.org/doi/full/10.1056/NEJMoa0907845>
- ◆ Review ***mineral and bone disease***. Assess relevant lab values (**labs - corrected calcium, phosphate, PTH trends, ALP, albumin**) calcium bath concentration, parathyroidectomy

surgical history and most recent phosphate binder/calcitriol /cinacalcet therapy. (Note, at some MRP sites, some aspects of this care are provided by dieticians)

- KDIGO MBD (2009) <http://kdigo.org/home/mineral-bone-disorder/>
  - Raymond CB, Wazny LD, Sood A. Update on the new Kidney Disease: Improving Global Outcomes (KDIGO) guidelines for mineral and bone disorders (MBD)--a focus on medications. CANNT J, 2010;20(1):42-8 <http://www.ncbi.nlm.nih.gov.proxy2.lib.umanitoba.ca/pubmed/20426360>
  - MRP Guidelines for use of cinacalcet (available by email)
  - Raymond CB, Wazny LD, Sood A. Sodium thiosulfate, bisphosphonates, and cinacalcet for calciphylaxis . CANNT J, 2009; 19(4):25 <http://www.ncbi.nlm.nih.gov.proxy2.lib.umanitoba.ca/pubmed/20136032>
  - CSN Guidelines for patients with CKD not receiving dialysis (2008) <http://www.cmaj.ca/content/179/11/1154.full.pdf+html>
- ◆ Determine if any medications are required or need to be adjusted for **cardiac risk** reduction after evaluation of cardiac history and risk (presence of MI, CAD, angina, CHF, TIA, a fib, diabetes, smoking status, hypertension, PVD), relevant lab values (**labs - lipid profile monitor MIBI, echo**) and use of aspirin, clopidogrel, ACE/ARB, BB, CCB, NTG, statin, diuretic, and anticoagulants (**labs INR warfarin, LMWH creatinine for clinic patients, platelets, all monitor drug interactions**).
- Herzog CA, et al. Cardiovascular disease in chronic kidney disease. A clinical update from Kidney Disease: Improving Global Outcomes (KDIGO). (2011) <http://www.kdigo.org/pdf/KDIGO%20CVD%20Controversy%20Rpt.pdf>
  - Cheung AK, Henrich WL. Secondary prevention of cardiovascular disease in end-stage renal disease (dialysis) UpToDate V 10.2. [http://www.uptodate.com.proxy2.lib.umanitoba.ca/contents/secondary-prevention-of-cardiovascular-disease-in-end-stage-renal-disease-dialysis?source=search\\_result&search=cardiovascular+disease+and+kidney+disease&selectedTitle=12%7E150](http://www.uptodate.com.proxy2.lib.umanitoba.ca/contents/secondary-prevention-of-cardiovascular-disease-in-end-stage-renal-disease-dialysis?source=search_result&search=cardiovascular+disease+and+kidney+disease&selectedTitle=12%7E150)
  - Gibson CM, Henrich WL. Chronic kidney disease and coronary heart disease. UpToDate V 10.2. [http://www.uptodate.com.proxy2.lib.umanitoba.ca/contents/chronic-kidney-disease-and-coronary-heart-disease?source=search\\_result&search=cardiovascular+disease+and+kidney+disease&selectedTitle=2%7E150](http://www.uptodate.com.proxy2.lib.umanitoba.ca/contents/chronic-kidney-disease-and-coronary-heart-disease?source=search_result&search=cardiovascular+disease+and+kidney+disease&selectedTitle=2%7E150)
  - Bell et al The use of antiplatelet therapy in the outpatient setting: Canadian Cardiovascular Society Guidelines Executive Summary. Can J Cardiol 2011 Mar-April 27(2):208-21 <http://www.ncbi.nlm.nih.gov.proxy2.lib.umanitoba.ca/pubmed/21459270>
  - CSN Guidelines for patients with CKD not receiving dialysis (2008) <http://www.cmaj.ca/content/179/11/1154.full.pdf+html>
  - KDIGO Guidelines for CKD Management (2012) [http://www.kdigo.org/clinical\\_practice\\_guidelines/pdf/CKD/KDIGO\\_2012\\_CKD\\_GL.pdf](http://www.kdigo.org/clinical_practice_guidelines/pdf/CKD/KDIGO_2012_CKD_GL.pdf)
- ◆ Review **blood pressure** (and for clinic patients antiproteinuric therapies) including ACE/ARB, BB, CCB, diuretic and other antihypertensives (**monitor – pre-dialysis, post dialysis, intradialytic, clinic, dry weight, home BP machine, recent change**)
- KDIGO Guidelines for Blood Pressure in CKD (2012) [http://www.kdigo.org/clinical\\_practice\\_guidelines/pdf/KDIGO\\_BP\\_GL.pdf](http://www.kdigo.org/clinical_practice_guidelines/pdf/KDIGO_BP_GL.pdf)
  - KDIGO Guidelines for CKD Management (2012) [http://www.kdigo.org/clinical\\_practice\\_guidelines/pdf/CKD/KDIGO\\_2012\\_CKD\\_GL.pdf](http://www.kdigo.org/clinical_practice_guidelines/pdf/CKD/KDIGO_2012_CKD_GL.pdf)

- Henrich WL, Mailloux LU. Hypertension in dialysis patients. UpToDate V 10.2  
[http://www.uptodate.com.proxy1.lib.umanitoba.ca/contents/hypertension-in-dialysis-patients?source=related\\_link](http://www.uptodate.com.proxy1.lib.umanitoba.ca/contents/hypertension-in-dialysis-patients?source=related_link)
- Kaplan NM, Rose BD. Hypertension in kidney disease. UpToDate V 10.2  
[http://www.uptodate.com.proxy1.lib.umanitoba.ca/contents/hypertension-in-kidney-disease?source=search\\_result&search=hypertension+and+chronic+kidney+disease&selectedTitle=1%7E150](http://www.uptodate.com.proxy1.lib.umanitoba.ca/contents/hypertension-in-kidney-disease?source=search_result&search=hypertension+and+chronic+kidney+disease&selectedTitle=1%7E150)
- CSN Guidelines for patients with CKD not receiving dialysis (2008)  
<http://www.cmaj.ca/content/179/11/1154.full.pdf+html>
- ◆ Review ***diabetes*** management, including dialysis and home blood glucose monitoring, relevant lab values (**labs - HbA1c, creatinine for clinic patients, monitor drug interactions**) use of hypoglycemic agents (including especially subcutaneous and intraperitoneal insulin), adverse effects (including hypoglycemia), appropriate medication administration, consults to endocrinology, ophthalmology and recommend pharmacotherapy and or nondrug therapy as appropriate.
  - Berns SJ. Management of hyperglycemia in patients with end stage renal disease. UpToDate V 10.2.  
[http://www.uptodate.com.proxy1.lib.umanitoba.ca/contents/management-of-hyperglycemia-in-diabetics-with-end-stage-renal-disease?source=search\\_result&search=diabetes+and+peritoneal+dialysis&selectedTitle=1%7E150](http://www.uptodate.com.proxy1.lib.umanitoba.ca/contents/management-of-hyperglycemia-in-diabetics-with-end-stage-renal-disease?source=search_result&search=diabetes+and+peritoneal+dialysis&selectedTitle=1%7E150)
  - Canadian Diabetes Association Guidelines (2008)  
<http://www.diabetes.ca/files/cpg2008/cpg-2008.pdf>
  - KDOQI Diabetes and Chronic Kidney Disease (2012 update)  
[https://www.kidney.org/professionals/guidelines/guidelines\\_commentaries](https://www.kidney.org/professionals/guidelines/guidelines_commentaries)
  - CSN Guidelines for patients with CKD not receiving dialysis (2008)  
<http://www.cmaj.ca/content/179/11/1154.full.pdf+html>
  - KDIGO Guidelines for CKD Management (2012)  
<http://kdigo.org/home/>
- ◆ Review ***pain management***, including source of pain, quantity, quality, therapies trialed, adverse effects, response to therapy, non-narcotic analgesics (d/c NSAIDs, COX2 in clinics), adjuvant medications, opiates (**labs, creatinine for clinic patients, monitor drug interactions, dose conversions between agents, appropriate refills and timing of refills**), and recommend pharmacotherapy and or nondrug therapy as appropriate, including counseling on OTC analgesics.
  - Davison SN. The prevalence and management of chronic pain in end-stage renal disease. J Palliat Med 2007 Dec;10(6):1277-87. <http://www.ncbi.nlm.nih.gov.proxy1.lib.umanitoba.ca/pubmed/18095806>
  - Canadian Guideline for Safe and Effective Use of Opioids for Chronic Non-Cancer Pain  
<http://nationalpaincentre.mcmaster.ca/opioid>
- ◆ Review patient for ***peripheral neuropathy***, including source of pain, quantity, quality, therapies trialed, adverse effects, response to therapy, and recommend pharmacotherapy and or nondrug therapy as appropriate.
  - Naylor HK, Raymond CB. Treatment of neuropathic pain in patients with chronic kidney disease. CANNT J 2011;21(1):34-40 <http://www.ncbi.nlm.nih.gov.proxy1.lib.umanitoba.ca/pubmed/21561014>

- ♦ Review patient for ***restless leg syndrome***, including medications causing or exacerbating, therapies trialed, adverse effects, current symptoms and recommend pharmacotherapy and or nondrug therapy as appropriate.
  - Raymond CB, Breland L, Wazny LD, Sood AR, Orsulak CD. Treatment of restless legs syndrome in patients receiving dialysis – a focus on medications. CANNT J, 2010;20(2):29-35 <http://www.ncbi.nlm.nih.gov.proxy1.lib.umanitoba.ca/pubmed/?term=20642163>
  - International Restless Legs Syndrome Rating Scale <http://www.medicine.ox.ac.uk/bandolier/booth/RLS/RLSratingscale.pdf>
  
- ♦ Review patient for ***smoking status***, ask if patient is ready to quit and recommend pharmacotherapy and or nondrug therapy as appropriate.
  - Raymond CB, Naylor H. Strategies for smoking cessation in patients with chronic kidney disease. CANNT J 2010;20(4):24-31 <http://www.ncbi.nlm.nih.gov.proxy1.lib.umanitoba.ca/pubmed/?term=21319580>
  - WRHA smoking cessation resources <http://home.wrha.mb.ca/prog/pph/tobacco/index.php> or <http://www.wrha.mb.ca/healthinfo/preventill/tobacco/resources.php>
  
- ♦ Review patient for ***cramps*** including therapies trialed, adverse effects, current symptoms and pharmacotherapy and or nondrug therapy as appropriate.
  - Raymond CB, Wazny LD. Treatment of leg cramps in patients with chronic kidney disease receiving hemodialysis CANNTJ 2011;21(3):19-21 <http://www.ncbi.nlm.nih.gov.proxy1.lib.umanitoba.ca/pubmed/?term=22013661>
  
- ♦ Review patient for ***pruritis*** including therapies trialed, adverse effects, current symptoms and pharmacotherapy and or nondrug therapy as appropriate.
  
- ♦ Review patient for ***gastrointestinal*** issues (reflux, constipation, diarrhea, history of GI bleeding) including therapies trialed, adverse effects, current symptoms and pharmacotherapy and or nondrug therapy as appropriate
  
- ♦ Review patient for ***infectious diseases*** including line infections, skin infections, peritonitis, requiring treatment or prophylaxis for appropriate drug, dose duration. Consider signs and symptoms, previous infectious organisms (**labs - CBC, culture- vancomycin or aminoglycoside levels, creatinine for clinic patients, monitor ototoxicity for aminoglycosides**)
  - Vancomycin dosing Zelenitsky SA, Ariano RE, McCrae ML, Vercaigne LM. Initial vancomycin dosing protocol to achieve therapeutic serum concentrations in patients undergoing hemodialysis. *Clin Infect Dis*. 2012;55(4):527-33. <http://www.ncbi.nlm.nih.gov.proxy1.lib.umanitoba.ca/pubmed/?term=22573855>
  
- ♦ Review hemodialysis patient ***antibiotic locks*** for appropriate drug, dosing, duration and administration per MRP Policy 30.30.02, and 30.30.14 (**labs - CBC, culture**)
  - <http://www.kidneyhealth.ca/wp/wp-content/uploads/MRP-PP-Manual-March-2011.pdf>
  
- ♦ Review peritoneal dialysis patients with ***peritonitis*** for medication appropriateness and dosing (**labs - CBC, culture**)

- Intraperitoneal medications PD handbook 2006 online at:  
<http://pediatrics.med.unc.edu/education/uncped/intranet-folder/rotation-readings/nephrology-readings/files-1/Primer%20on%20PD.2006.pdf>
- DeVin F, Rutherford P, Faict D. Intraperitoneal administration of drugs in peritoneal dialysis patients: a review of compatibility and guidance for clinical use. *Peritoneal Dialysis International*, Vol. 29, pp. 5–15  
<http://www.pdconnect.com/content/29/1/5.full.pdf+html>
- Peritonitis Guidelines (2010) <http://www.pdconnect.com/cgi/reprint/30/4/393>
- ◆ Review hemodialysis patients for ***phosphate and calcium additives to the dialysate*** if administered appropriate drug, dosing, duration and administration per according to MRP policy 60.50.02, 60.50.03 (**labs - corrected calcium, phosphate, PTH trends, ALP, albumin**)
  - <http://www.kidneyhealth.ca/wp/wp-content/uploads/MRP-PP-Manual-March-2011.pdf>
- ◆ Review renal health clinic and peritoneal dialysis patients for ***elevated potassium*** including medications causing or exacerbating, dietician recommendations, previous therapies and use of and pharmacotherapy and or nondrug therapy as appropriate (**labs - potassium**). In other sites, this is followed by dieticians unless pharmacists are specifically asked.
  - Raymond CB, Sood AR, Wazny LD. Treatment of hyperkalemia in patients with chronic kidney disease – a focus on medications. *CANNT J* 2010;20(3):49-54 <http://www.ncbi.nlm.nih.gov.proxy1.lib.umanitoba.ca/pubmed/?term=21038829>
- ◆ Review renal health clinic patients for ***metabolic acidosis*** including previous therapies and use of and pharmacotherapy as appropriate (**labs - bicarbonate**)
  - KDIGO Guidelines for CKD Management (2012)  
<http://kdigo.org/home/>
- ◆ Contribute to MRP policies and procedures to facilitate appropriate ***vaccination*** status for Hepatitis B (**labs HbSAg, HbsAb, anti-HCV**), pneumonia and influenza according to MRP policy 60.30.04 and standardized order sets as appropriate. Pharmacists and nurses document and follow serology, while nurses and administer vaccines.
  - <http://www.kidneyhealth.ca/wp/wp-content/uploads/MRP-PP-Manual-March-2011.pdf>
- ◆ Review patient for ***psychotropic medications (antidepressants, antipsychotics, sedatives)*** drug dosing, adverse effects, drug interactions, potential for discontinuation and pharmacotherapy and or nondrug therapy as appropriate.
  - Hedayati SS, Yalamanchili V, Finkelstein FO. A practical approach to the treatment of depression in patients with chronic kidney disease and end-stage renal disease. *Kidney Int* 2012;81(3):247-55 <http://www.ncbi.nlm.nih.gov.proxy1.lib.umanitoba.ca/pubmed/?term=22012131>
- ◆ Review clinic patients for ***gout*** therapy: including drug choice, drug dosing, adverse effects, drug interactions, potential for discontinuation and pharmacotherapy and or nondrug therapy as appropriate.
- ◆ Review patient for ***duplication*** of pharmacologically or therapeutically similar medications
- ◆ Review patient for appropriate dosage form and route of administration
- ◆ Review patient for medication therapy not indicated
- ◆ Review patient for medication therapy which is indicated but not utilized



- ♦ Review patient for problems related to intravenous drug administration as requested by a nurse (e.g. IV incompatibilities, stability, rate of administration)
  - ♦ Review patient for the use of the following high alert medications not mentioned previously: digoxin (labs levels, creatinine for clinic patients, potassium, magnesium, monitor drug interactions), lithium (labs levels, creatinine for clinic patients, monitor drug interactions), and immunosuppressive therapy (labs, creatinine for clinic patients, CBC, drug specific parameters e.g. TPMT, cyclosporine levels, monitor drug interactions)) as per WRHA Pharmacist Practice expectations. Additional medications can be monitored as determined by the individual pharmacist.
    - WRHA Pharmacist Practice Expectations  
<http://home.wrha.mb.ca/prog/pharmacy/files/PharmacistPerformanceExpectations.pdf>
- B. The pharmacist shall perform the following **must-do activities** of a fully staffed weekday (prioritized with pharmacist professional judgment)
- Provide drug information for immediate patient care that day.
  - Provide student education to U of M Pharmacy students and residents.
  - Provide monitoring and follow-up of actions/recommendations made (e.g. resolution of DRP, individualization of medication therapy requiring follow-up).
  - Provide continuity of care within the facility
- C. The pharmacist shall perform the following **desirable** activities as appropriate (prioritized with pharmacist professional judgment)
- Provide investigation of medication incidents or errors.
  - Provide review/triage of HD or PD medication orders.
    - Screening of medication order problems, appropriateness, duration, dosing and drug interactions as appropriate or on request from renal health team.
    - Contact prescribing nephrologist as necessary
  - Participate in MRP and WRHA initiatives (e.g. drug protocol development, pre printed orders review, committees, development of policy and procedures).
  - Provide education related activities to health professionals
  - Provide drug information not needed immediately (e.g. future patient care, interest).
  - Provide continuity of care between WRHA facilities when patients' are transferred.
  - Provide drug use management activities including prospective audits.
  - Participate in projects or research.

APPENDIX 1: Prioritization of Pharmacist Activities

#	Pharmacist Activities	Regular M-F day	Short Staffed	
1	Attend clinic (HD, PD, CKD) as appropriate at site	M	M	Depends on severity for all situations
2	Attend multidisciplinary patient care rounds as appropriate	M	M	Depends on severity for all situations
3	Discharge (or transfer) medication reconciliation	M	M	
4	Review monthly bloodwork as appropriate at site	M	M	Depends on severity for all situations
5	Perform detailed medication reviews to identify actual and potential DRPs and to document recommendations, monitoring and follow up (priority new starts to HD or PD)	M	M	Depends on severity for all situations
6*	Provide drug information for immediate patient care that day.	M	M	
	Provide student education to U of M Pharmacy students and residents when scheduled	M	M	
	Provide monitoring and follow-up of actions/recommendations made (e.g. resolution of DRP, individualization of medication therapy requiring follow-up).	M	S	Needs to be selective
	Provide continuity of care within the facility	M	S	
10	Provide investigation of medication incidents or errors.	S	S	
11	Provide review/triage of HD or PD medication orders	S	S	Depends on severity for all situations
12	Participate in MRP and WRHA initiatives (e.g. drug protocol development, pre printed orders review, committees, development of policy and procedures).	S (see criteria)	None	
13	Provide education related activities to health professionals	S	None	
14	Provide drug information not needed immediately (e.g. future patient care, interest).	S	None	Needs to be selective
15	Provide continuity of care between WRHA facilities when patients are transferred.	S	None	
16	Provide drug use management activities including prospective audits.	S	none	
17	Participate in projects or research.	S	None	

\* Prioritized within this category with pharmacist professional judgement

NOTE: M = "Must Do" activity

S = "Should Do" activity