Dialysis: What Do You Need To Know About Co-Management?

2026 Hypertension and Chronic Kidney Disease Course

Dr. Pierre Antoine Brown, MD, M.Sc, FRCP(C)

Nephrologist |Néphrologue

Associate Professor | Professeur agrégé

Medical Director, Hemodialysis | Directeur Médical, Hémodialyse

Medical Director, Cystic Renal Diseases Clinic| Directeur Médical, Clinique de maladie rénales cystiques

Division of Nephrology| Division de néphrologie

The Ottawa Hospital & uOttawa| L'Hôpital d'Ottawa & uOttawa

COI

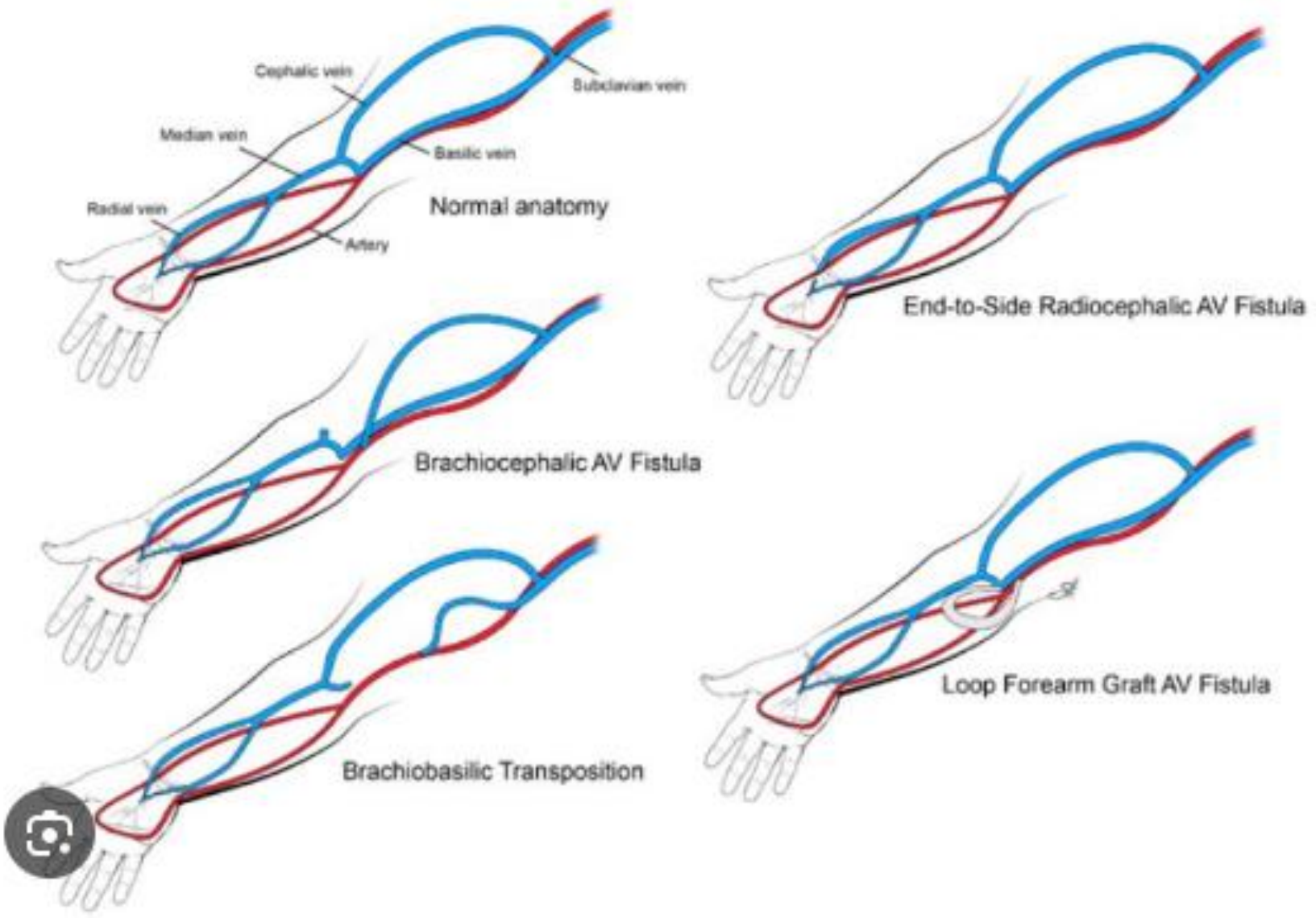
- I have received honoraria from
  - Otsuka Canada
  - Bayer Canada
  - Amgen Canada
- I hold an unrestricted research and education grant from Otsuka Canada

Kidney Replacement Therapy (aka dialysis)

- 2 modalities
  - Hemodialysis
    - Typically done “in centre” (clinic or hospital)
    - Normal schedule is 3x/week on Mon-Wed-Fri or Tues-Thurs-Sat
    - Rarely some patients do it at home
  - Peritoneal Dialysis
    - Done exclusively at home, by patient, family or even visiting nurses
    - Daily therapy
    - Twin bag (i.e gravity based) or cycler (small machine)
- Both modalities are equivalent, no MEDICAL advantage one vs the other

HD

- Typical
  (clinic
- Norma
  3x/wee
  or Tues
- Rarely
  it at ho
- Acces
  - AVF
  - Cen



PD

- Done exclusiv
  home, by pati
  or even visitir
- Daily therapy
- Twin bag (i.e g
  based) or cyc
  machine)

Common problems/issues for KRT patients

- Hypertension management
- Drugs to avoid and drug dosing
- Investigations/Primary prevention/cancer screening
- Kidney transplant evaluation
- Communication

Hypertension in Dialysis

- “Volume overload until proven otherwise”
- Challenging to establish true baseline given the frequent (and significant) fluctuations between HD and non HD days
- Tends to be medication resistant (see above)
- **Best advice for co management** :
  - Unless critically low or high, leave it be, (we look at it all the time)
  - If you have concerns, speak to nephrologist
    - Give a note to the patient to bring into HD unit is best for a prompt reply


Baclofen
in CKD&ESRD

Medications challenges

- Meds to AVOID
  - Baclofen!!!
  - Phosphate based fleet preparations
  - Aluminum based anti acid

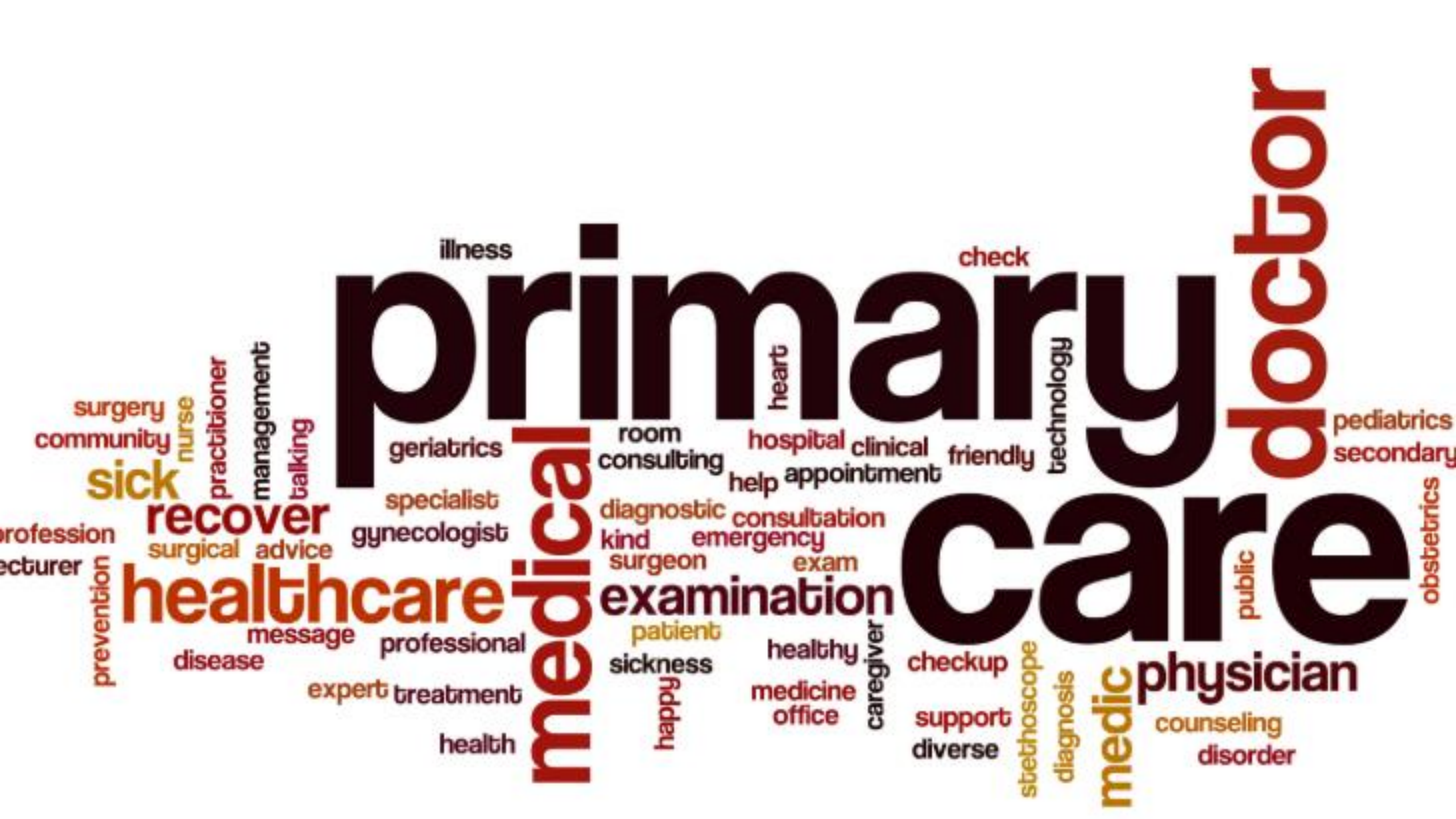
Medications challenges

Common medications that require dosing adjustments

- Most antibiotics- always best to look up
- Most antivirals ESPCIALLY for Zoster
- Oral hypoglycemic agents (many cannot be used)
- DOACs

- Common medications that require some discussion
  - NSAIDs
    - If patient anuric, little to no impact
    - Opposite if they have residual kidney function
    - Best to check with dialysis team

Class	Agent	Stage 1	Stage 2	Stage 3a	Stage 3b	Stage 4	Stage 5
GFR (mL/min/1.73 m²)		>90	89-60	59-45	44-30	29-15	<15
BIGUANIDES	METFORMIN	0.5-2 g/day			up to 1g/day	Avoid if GFR <30	
SULFUNILUREAS	GLICLAZIDE MR	30-120 mg/day				Lim. Exp. GFR <30	
	GLIMEPIRIDE	1-8 mg/day			Limited experience GFR <45		
	GLIPIZIDE	2.5-20 mg/day				Lim. Exp. GFR <30	
	GLIBENCLAMIDE	2.5-20 mg/day	Titrate	Avoid if GFR <60			
GLINIDES	REPAGLINIDE	0.5-2 mg/day				Lim. Exp. GFR <30	
	NATEGLINIDE	60-120 mg/day			Avoid if GFR <45		
GLUCOSIDASE INHIBITOR	ACARBOSE	50-300 mg/day			Avoid if GFR <45		
GLITAZONES	PIOGLITAZONE*	15-45 mg once a day					Lim. Exp. GFR <15
DPP-4i	ALOGLIPTIN	25 mg/day		12.5 mg once a day		6.25 mg once a day	
	LINAGLIPTIN	5 mg/day					
	SAXAGLIPTIN	5 mg once a day			GFR <50: 2.5 mg once a day		
	SITAGLIPTIN	100 mg once a day			GFR 30-50: 50 mg once a day	GFR <30: 25 mg once a day	
	VILDAGLIPTIN	50 mg once a day			GFR <50: 50 mg once a day		
GLP-1 RA	EXENATIDE	5-20 µg/day	5-10 µg/day		Avoid if GFR <45		
	LIRAGLUTIDE	0.6-1.8 mg/day					Lim. Exp. GFR <15
	DULAGLUTIDE	0.75-1.5 mg/week					Lim. Exp. GFR <15
	SEMAGLUTIDE SC	0.25-1 mg/week					Lim. Exp. GFR <15
	SEMAGLUTIDE OR	3-14 mg/day					Lim. Exp. GFR <15
SGLT2i	DAPAGLIFLOZIN	10 mg/day				Lim Exp. GFR <25	
	CANAGLIFLOZIN	100-300 mg/day				Lim. Exp. GFR <35	
	EMPAGLIFLOZIN	10-25 mg/day				Lim. Exp. GFR <30	
INSULIN		Usual dose		Reduce 25%			


primary
care
doctor
medical
healthcare
examination
physician
medic
illness
check
surgery
community
nurse
practitioner
management
talking
sick
recover
geriatrics
room
consulting
heart
technology
hospital
clinical
friendly
help
appointment
pediatrics
secondary
specialist
gynecologist
diagnostic
consultation
kind
emergency
surgeon
exam
surgical
advice
profession
ecturer
prevention
message
disease
professional
patient
sickness
healthy
checkup
caregiver
public
obstetrics
expert
treatment
health
happy
medicine
office
support
diverse
stethoscope
diagnosis
counseling
disorder

Primary prevention

- Patients with ESKD and at very high risk for CVD events by the very nature of their disease
- Limited need for traditional CV risk reduction interventions
  - BP control – as per prior discussion
  - Lipids – they should mostly all be on low dose statins
  - DM – Should be safely optimized but not aggressively controlled

Investigations

- Hemodialysis patients undergo comprehensive lab investigations 9x per year
- We have access to their blood 3x/week
  - If you require additional labs – send a req in with patient to HD
- Peritoneal dialysis patients also undergo comprehensive lab investigations every 8-10 weeks.
  - If you require additional labs – send a req in with patient to their next dialysis clinic visit
- We typically manage all aspects of Hb, Iron, Na, K, Ca, Po4, PTH – they may be abnormal, but we are working on them

Cancer screening/immunizations

- Immunizations are highly encouraged!
  - Follow the usual immunization recommendations
  - Double check with patient as they may have received immunizations in dialysis clinics (e.g. Hep B, RSV, flu)
  - For patients active on the transplant list, best to check with the dialysis unit

- Cancer screening should be performed as usual

Kidney Transplant Evaluation

- In order to be listed on the transplant list, patients require extensive screening
- Common investigations required include
  - TB skin test
  - FIT test
  - Pap test

Communication

- Dialysis is care often shared between a few nephrologist
- Figuring where/how to send communication can be a bit of a challenge
- For questions/issues options are
  - Give note to patient
  - Ask patient where they get dialysis and call the unit
  - If patient unreliable/uncertain, you can always send a note to the Ottawa Hospital Nephrology clinic – our office admins are pretty good at routing notes to the right person

THANK YOU

Any Questions?