

“Looking Beyond The Numbers: Providing Holistic Care in an Interdisciplinary Clinical Setting”

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St. Michael's

Inspired Care. Inspiring Science.

Implementing HIV & Rehabilitation Research into Practice

- ◆ HIV has become a chronic, manageable disease
- ◆ Focus on improved life expectancy and improved quality of life
- ◆ Greater attention on management of co-morbid conditions including cardiac risk, cancer screening, smoking cessation and screening for mental health and addictions

Implementing HIV & Rehabilitation Research into Practice

- ◆ Need for paradigm shift from acute, terminal disease to chronic illness model addressing medical, psychological, social and spiritual issues
- ◆ Challenge of finding the right clinician and the adequate time to address multitude of issues
- ◆ Development of a clinical tool, HIV Clinical Checklist to assist a broad scope of practitioners in assessing some of these important issues

Cumulative Patient Profile

Medical Inquiry <input type="checkbox"/> Family Hx – 1st generation, age <i>Esp. cardiovascular diseases, stroke, aneurysm, HTN, dyslipidemia, diabetes, dementia, substance use disorders, mental illness, cancer of colon/breast/prostate</i> <input type="checkbox"/> Medications – Rx/OTC/recreational/herbal <input type="checkbox"/> Allergies <input type="checkbox"/> Procedures/Hospitalizations/ Surgery <input type="checkbox"/> Medical Problems: New Ongoing/ Resolved <input type="checkbox"/> Review of Systems	Immunizations			Personal/Social Inquiry <input type="checkbox"/> Employment/other income/benefits <input type="checkbox"/> Education <input type="checkbox"/> Housing/transportation <input type="checkbox"/> Substance: ETOH Tobacco/Other <input type="checkbox"/> Relationships/Support Network <input type="checkbox"/> Sexual health/Family Planning <input type="checkbox"/> Sleep Habits <input type="checkbox"/> Activities of Daily living (ADL) <input type="checkbox"/> Mental health status/suicide risk <input type="checkbox"/> Spirituality
	<input type="checkbox"/> Annual <input type="checkbox"/> Influenza	<input type="checkbox"/> One time <input type="checkbox"/> Hep B series <input type="checkbox"/> Hep A series <input type="checkbox"/> Acellular pertussis if no previous^ <input type="checkbox"/> MMR* <input type="checkbox"/> HPV: ♀ 9-26 <input type="checkbox"/> Varicella series* <input type="checkbox"/> Polio series*	<input type="checkbox"/> Periodic <input type="checkbox"/> Pneumo-cococcus Q5yrs <input type="checkbox"/> Diphtheria/Tetanus^ Q10yrs	
<small>*for those with no history of vaccination, disease or antibodies ^Give as Td but use Tdap at least once in adulthood if no history of previous acellular pertussis vaccine</small>				

Lifestyle/Behavioural

Diet and Nutrition <input type="checkbox"/> Advice on fat/cholesterol/ Canada Food Guide <input type="checkbox"/> Calcium (1000mg-1500mg/day) <input type="checkbox"/> Vitamin D (1000iu – 2000iu/day) <input type="checkbox"/> Folic Acid 1mg ♀ child-bearing age <input type="checkbox"/> Weight loss/gain strategies <input type="checkbox"/> Fibre intake <input type="checkbox"/> Sodium intake	Personal Safety <input type="checkbox"/> Bike helmets <input type="checkbox"/> Seat Belts <input type="checkbox"/> Driving fitness/DUI <input type="checkbox"/> Sun Protection <input type="checkbox"/> Hearing/vision protection <input type="checkbox"/> Fall risk <input type="checkbox"/> Smoke detectors	Health Teaching <input type="checkbox"/> Oral Hygiene: brushing, flossing, routine dental care <input type="checkbox"/> Eye exam per disease protocol <input type="checkbox"/> Safer sex practices/STI counsel <input type="checkbox"/> Exercise- 30 minutes/day 5d/wk <input type="checkbox"/> Smoking cessation <input type="checkbox"/> Safer substance use
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Labs/ Investigations/Cancer Screening

<input type="checkbox"/> Physical Examination: include vitals, waist circumference, thorough skin inspection, ♂DRE with visual genital/anal inspection, ♀ manual breast exam <input type="checkbox"/> CBC, Electrolytes; creatinine; lipid screen and CV risk assessment; fasting glucose; Urinalysis- albumin:cr if DM or HT; GC/CT testing-urine or cervical; syphilis serology; hepatitis serology if needed; LFT's; consider ferritin, TSH, B12; am testosterone♂; HIV labs + HLA-B*5701, genotypes if needed <input type="checkbox"/> PAP annually in all ♀ q6mos for first year then annually if no abnormality <input type="checkbox"/> Tuberculin test (PPD): annually in patients at risk <input type="checkbox"/> Cognitive Screen	Additional Screening if Age >50 <input type="checkbox"/> Mammography(consider at 40yrs - ♀) <input type="checkbox"/> PSA recommended (♂) <input type="checkbox"/> Colonoscopy q10yrs** <input type="checkbox"/> Bone Mineral Density <input type="checkbox"/> Audiogram <input type="checkbox"/> U/S once 65-75 screen for AAA in smoker <small>**Hemocult q1-2 years if no scope</small>
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Notes:

HIV CHRONIC DISEASE STATE MANAGEMENT

HIV Disease

Head to Toe (clinician and self-assessment):

Assess neurocognitive function (mini- cog test)
 Assess depression,CNS symptoms,sleep quality
 Address body habitus
 Address pain syndromes/neuropathy/arthropathy
 Address sexual health, risks, safer sex, disclosure
 Assess GI complaints, bowel habits, abdo pain, weight, appetite

Treatment:

Discuss HIV labs; VL, CD4, genotypes*
 When to start if not on ARV
 What to take if initiating or changing ARV
 Assess side effects if on ARV; contemplate ARV switch
 Address adherence

*baseline and prn, tropism prior to start or switch

Cardiovascular Risk Management

SMOKING CESSATION

The 5A'S Approach to Smoking Cessation Counselling

- ASK** smoking status at each visit
ADVISE about risks and strategies for quitting
ASSESS readiness to commit to quit
ASSIST
- set quit date
 - consider medications
 - Smokers Helpline 1-877-513-5333
- ARRANGE**
- follow up contact shortly after planned quit
 - date and routinely encourage maintenance

DYSLIPIDEMIA

Obtain Fasting Lipids (apo B can be measured in the fed state)

- Baseline
- Prior to starting HAART
- 3-6 months after HAART initiation
- Yearly (re-assess risk q12 months)

Calculate & Categorize CV Risk

- Calculate using Framingham
- <10% = LOW RISK
- 10%- 20% = MODERATE RISK
- >20% = HIGH RISK

Assess Co-morbidities-ANY = HIGH RISK

- Diabetes mellitus
- Coronary heart disease
- Previous CV event
- Peripheral arterial disease (PAD)
- Aneurysm

Determine Lipid Targets

- LOW RISK: $\geq 50\%$ ↓ LDL-C
- MODERATE: LDL-C<2.0 or $\geq 50\%$ ↓ LDL-C or apo-B<0.8
- HIGH RISK: LDL-C<2.0 or $\geq 50\%$ ↓ LDL-C or apo-B<0.8

Treat to Target

- Lifestyle intervention, diet, exercise, smoking
- Statin for initial LDL lowering, increase to desired effect.
- Consider ezetimibe for additional LDL lowering
- Fibrates if TG elevated, to avert pancreatitis
- Consider ARV switch only if HIV disease well controlled and options available

HYPERTENSION

Indication	Target BP	Recommended Drugs*
Essential Hypertension (without other indication)	<140/90mm Hg	Per CHEP guidelines
Post MI	<140/90mm Hg	Beta-blocker + ACE-I or ARB
CKD	<130/80mm Hg	ACE-I or ARB
Diabetes <i>with</i> nephropathy	<130/80mm Hg	ACE-I or ARB
Diabetes <i>without</i> nephropathy	<130/80mm Hg	ACE-I or ARB
Stroke/TIA	<140/90mm Hg	ACE-I, ARB, or thiazide diuretic or DHP-CCB ACE/diuretic combination

DIABETES

DIAGNOSIS:

2 consecutive measures of:
 FPG >7.0mmol/l
OR
 Random >11.1mmol/l
OR
 OGTT >11.1mmol/l

TREATMENT:

- Lifestyle intervention, diet, exercise, smoking
- If A1C >7.0: Titrate metformin to 1g bid
- If A1C >7.0: add a second class

WHEN to REFER:

- If second class med ineffective
- If A1C consistently >9.0
- If considering addition of insulin

OTHER TARGETS:

BP <130/80: ACE or ARB if treatment needed
 LDL<2.0
 GFR >60ml/min, monitor microalbuminuria

Co-Morbid Diseases

CHRONIC KIDNEY DISEASE

Initial workup	When to refer
Serum Cr, electrolytes, Ca, Mg, phosphate, albumin CBC, liver enzymes and liver function tests Hepatitis B & C serologies Screen for diabetes mellitus, lipid profile Urine spot urine albumin: creatinine ratio AND/OR 24-hr collection for CrCl and proteinuria Imaging Renal ultrasound	Acute renal failure Rapidly declining renal function eGFR < 30 ml/min Persistent proteinuria Albumin: Cr ratio >60* Protein:Cr ratio >90*
	Urological assessment if evidence of obstruction

HEPATITIS

Health Teaching:
 Transmission risk; avoidance of ETOH and other toxins; assess hepatotoxic meds

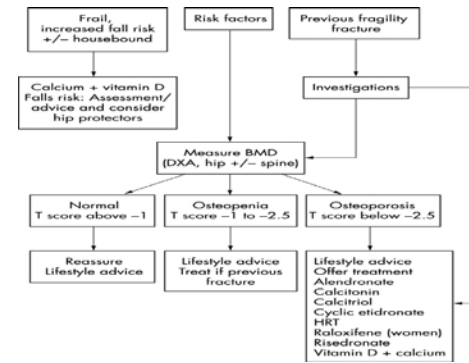
Hepatitis C: Consensus Guidelines
www.hepatology.ca/cm/FileLib/hepC.pdf

Labs: AST,ALT,CBC,Bili, Albumin,PT HCV RNA-quantitative; HCV genotype
Consider: Biopsy if genotype 1 and 4
 Alpha-fetoprotein if cirrhosis

Hepatitis B: Consensus Guidelines
www.hepb.org/treatment

Labs: AST,ALT,CBC,Bili, Albumin, PT, HBV DNA;HbeAg, Anti-Hbe
Consider: US/CT; Biopsy,
 Alpha-fetoprotein if cirrhosis

OSTEOPOROSIS



USEFUL LINKS AND RESOURCES

ANNUAL SCREENING

Preventative Annual Health Exam

Primary Care Guidelines for the Management of Persons Infected with Human Immunodeficiency Virus: 2009 Update by the *HIV Medicine Association of the Infectious Diseases Society of America* Clinical Infectious Diseases 2009;49:651–681

www.idsociety.org

The Evidence Based Preventative Care Checklists for Adult Men and Women. Can Fam Physician Vol. 54, No. 1, January 2008, pp.84 - 88

www.cfpa.ca

Diet and Nutrition

Canada's Food Guide

www.hc-sc.gc.ca/fn-an/food-guide

Smoking Cessation

Clinical Tobacco Intervention

www.ctica.org/cessation/cessation.html

Smoker's Helpline: 1-877-513-5333

www.smokershelpline.ca

CHRONIC DISEASE STATE MANAGEMENT

Cardiovascular Risk

CCS 2009 Guidelines

www.ccs.ca/consensus_conference

Infectious Diseases Society of America (IDSA) Guidelines for Managing CV Risk in HIV

www.idsociety.org

European AIDS Clinical Society (EACS) Guidelines

<http://www.europeanaidscinicalsociety.org/guidelines.asp>

Diabetes

CDA Guidelines 2008

www.diabetes.ca

Hypertension

CHEP Recommendations 2010

www.hypertension.ca/chep

Chronic Kidney Disease

Canadian Guidelines for CKD

www.cmaj.ca/cgi/content/full/

IDSA Guidelines for CKD in HIV

www.idsa.org

ARV Dosing Adjustments for Impaired Renal Function

www.hivclinic.ca/main/drugs

Hepatitis

Hepatitis C: Consensus Guidelines

www.hepatology.ca/cm/FileLib/hepC.pdf

Hepatitis B: Consensus Guidelines

www.hepb.org/treatment

Osteoporosis

Canadian Guidelines endorsed by CFP

www.osteoporosis.ca

So Just How do you Implement this tool into Real Life Practice?

- ◆ Road show to various ASOs, HIV clinics, patient groups
- ◆ Invitation for all practitioners to utilize (MD, RN, Pharmacist, Psychologist, Dietician, OT/PT, SW...)
- ◆ Written tear off sheets, cardboard or EMR
- ◆ Could be utilized within interdisciplinary team or solo practice

Implementing HIV & Rehabilitation Research into Practice

- ◆ Feedback to date:
 - ◆ “This will be helpful”
 - ◆ “This is too much work”
 - ◆ “Who has the time for all these questions?”
 - ◆ “Thank you for making my doctor look at me beyond my Viral Load”
 - ◆ “Do I do this at every patient visit?”
 - ◆ “I think this is key to addressing the issues that matter to patients”

Next steps

- ◆ More formalized research looking at:
 - ◆ Utilization patterns (Who, How, When)?
 - ◆ Settings of Use
 - ◆ Changes in clinical outcomes?
 - ◆ Changes in Practice?

Thank You

