



Patient: _____ was admitted to the Cardiology Service
 at the _____ from Y ____ /M ____ /D ____
 to Y ____ / M ____ / D ____ under the care of Dr. _____

Discharge Diagnoses include:

- CAD-CCS Class: 0 1 2 3 4
- Unstable angina
- Non STEMI (non-ST elevation MI)
- STEMI (ST elevation MI)
- Atrial fibrillation
- SVT
- VT
- CHF-NYHA Class: I II III IV
- Other: _____

Risk Factors:

- HTN DM Dyslipidemia Smoking Family History CAD

Past Medical History:

- Angina MI PCI CABG Valve Replacement
- Other: _____

Complications:

- Recurrent ischaemia
- CHF-Killip Class ____ / IV
- Pericarditis
- DVT/ Pulmonary embolism
- Heart Block: 1° 2° WB Mobitz II 3°
- Temporary Pacer Insertion Y/N
- LV thrombus
- Mechanical complication
 - MR
 - Aneurysm
 - Septal rupture
- Atrial fibrillation
- Ventricular tachycardia
- Other: _____

Pertinent Investigations:

Peak CK _____ CK MB _____ Troponin I/T _____ Other: _____

Total cholesterol: (target value mmol/L)

LDL ____ (<4.5) TG ____ (<1.7) HDL ____ (>1.2) LDL ____ (<1.8/2.0)

Stress Test:

Ex duration ____ Peak HR ____ (% PMHR ____) Positive Y/N High Risk Y/N

Echocardiogram EF ____% LV Function: _____

Valves: _____



MEDICATION PRESCRIPTIONS

✓	Class	Indication	Specific Rx	Dose (mg) & Frequency	Amount	Refills
	Nitroglycerin SL	Angina treatment				
	ASA	Blood thinner				
	Plavix	Blood thinner				
	β-blocker	<input type="radio"/> Angina <input type="radio"/> LV function/prognosis				
	Nitrate	Angina prevention				
	Calcium blocker	<input type="radio"/> Angina <input type="radio"/> HTN				
	Digoxin	<input type="radio"/> Atrial fib <input type="radio"/> CHF				
	Diuretic 1	Fluid retention				
	Diuretic 2	Fluid retention				
	Diuretic 3	Fluid retention				
	ACE inhibitor	LV function/prognosis				
	A-II antagonist	LV function/prognosis				
	Statin	Cholesterol lowering				
	Fibrate	Cholesterol lowering				
	Niacin	Cholesterol lowering				
	Ezetimibe	Cholesterol lowering				
	Anti-platelet	Blood thinner				
	Coumadin	Blood thinner				
	Anti-arrhythmic	<input type="radio"/> Atrial fib <input type="radio"/> VT				
	Oral Hypoglycemic	Blood sugar control				
	Oral Hypoglycemic	Blood sugar control				
	Oral Hypoglycemic	Blood sugar control				
	Insulin AM	Blood sugar control				
	Insulin PM	Blood sugar control				
	Other:					
Signature (physician)		Name printed		CPSO #:	Phone #:	

Supplementary Prescriptions/Discharge Rx:

✓	Rx	Indication	Specific Rx	Dose (mg) & Frequency	Amount	Refills
Signature (physician)		Name printed		CPSO #:	Phone #:	

CARDIOVASCULAR RISK REDUCTION CHECKLIST

Rx ✓	Intervention	Recommendations															
	Smoking: Goal -Complete cessation	Strongly encourage patient and family to stop smoking. Provide counselling, nicotine replacement, and formal cessation programs as appropriate.															
	Lipid Management: Primary goal * LDL < 2.0 (1.8) mmol/L	Start hypolipidemic diet in all patients: ≤ 30% fat, < 7% saturated fat, < 200mg/day cholesterol. 10% LDL ↓ achievable with diet. Assess fasting lipid profile. Baseline lipid profile < 24 hrs. after acute event. In post-MI patients, lipid profile may take 4 to 6 weeks to stabilize. Add drug therapy according to the following guide:															
	Secondary goal * TC/HDL<4; Apo-B<0.8 g/L Tertiary goal * Metabolic Syndrome TG < 1.7 mmol/l HDL 1.0mmol/l(men)/ 1.3mmol/l (women) <i>2009 CCS/Canadian guidelines for the Dx and Tx of dyslipidemia and prevention of CVD - 2009</i> <i>(NCEP ATP III Revision 2004)</i>	<table border="1" data-bbox="418 569 1377 783"> <thead> <tr> <th data-bbox="418 569 667 625">Lipid Profile</th> <th data-bbox="667 569 997 625">1st Line Therapy</th> <th data-bbox="997 569 1377 625">2nd Line Therapy</th> </tr> </thead> <tbody> <tr> <td data-bbox="418 625 667 659">LDL ↑</td> <td data-bbox="667 625 997 659">Statin</td> <td data-bbox="997 625 1377 659">Resin</td> </tr> <tr> <td data-bbox="418 659 667 695">LDL ↑↑ & TG</td> <td data-bbox="667 659 997 695">Statin</td> <td data-bbox="997 659 1377 695">Niacin or Fibrate</td> </tr> <tr> <td data-bbox="418 695 667 730">LDL ↑ & TG ↑↑</td> <td data-bbox="667 695 997 730">Fibrate or Niacin/Niaspan®</td> <td data-bbox="997 695 1377 730">Combination Therapy</td> </tr> <tr> <td data-bbox="418 730 667 783">TG ↑ & HDL ↓</td> <td data-bbox="667 730 997 783">Fibrate or Niacin/Niaspan®</td> <td data-bbox="997 730 1377 783">Combination Therapy</td> </tr> </tbody> </table> <p data-bbox="418 800 1377 898">* Primary goal: For patients CHD Risk equivalent: any of CAD, TIA, CVA, AAA, PVD/bruits, DM with one additional categorical risk factor or for patients with very high 10-year risk for total CV events (20%).</p> <ul data-bbox="418 905 1377 1045" style="list-style-type: none"> • Target initial Rx medication dose required to achieve target LDL <2.0 (1.8) mmol/L or ≥ 50% LDL ↓ • For 10 yr CV risk for hard endpoints 10-20%, LDL Rx threshold is 3.5 mmol/L or ≥ 50% LDL ↓ • For 10 yr CV risk for hard endpoints < 10%, LDL Rx threshold is 5.0 mmol/L or ≥ 50% LDL ↓ • Consider CRP measurement for males >50 & females >60. Initiate lipid lowering if CRP >2.0 mg/L <p data-bbox="418 1052 1377 1073">For specific medications and dosing strategy see Lipid Optimization Tool</p>	Lipid Profile	1 st Line Therapy	2 nd Line Therapy	LDL ↑	Statin	Resin	LDL ↑↑ & TG	Statin	Niacin or Fibrate	LDL ↑ & TG ↑↑	Fibrate or Niacin/Niaspan®	Combination Therapy	TG ↑ & HDL ↓	Fibrate or Niacin/Niaspan®	Combination Therapy
Lipid Profile	1 st Line Therapy	2 nd Line Therapy															
LDL ↑	Statin	Resin															
LDL ↑↑ & TG	Statin	Niacin or Fibrate															
LDL ↑ & TG ↑↑	Fibrate or Niacin/Niaspan®	Combination Therapy															
TG ↑ & HDL ↓	Fibrate or Niacin/Niaspan®	Combination Therapy															
	Hypertension Goal < 140/90 (Office BP) < 135/85 (Home BP) < 130/80 (DM/CKD) < 130/80 (CAD) <i>AHA 2007</i> < 120/80 (LVD) <i>AHA 2007</i> <i>2011 CHS</i> www.hypertension.ca Earlier Dx is Key BP control – Sodium reduction <1500 mg/day Achieve patient buy-in Treat to Target Focus on Adherence Regular follow-up Tx titration and self-titration Combination therapies	<ul style="list-style-type: none"> • Assess BP at all visits. Assess global CV risk. Lifestyle modifications are cornerstone of anti-hypertensive and anti-atherosclerotic therapy. • Initiate Rx immediately if hypertensive urgency. Dx HTN on second visit if : target organ damage, DM, chronic kidney disease (CKD) or BP > 180/110. Dx HTN on 3rd visit if BP ≥ 160 or ≥ 100 • Validate hypertension with: 1) Office BP(<140/90), ambulatory BP(< 135/85 daytime average/ or 130/80-24 hr average) or home/self BP(<135/85). Target < 140/90 office BP or < 130/80 DM, CAD or CKD. Target < 120/80 LVD (left ventricular dysfunction). • Initial Rx for systolic/diastolic HTN in absence of compelling indication: Low dose thiazide; β-blocker if age < 60 yr; ACE-I in non-black pts; long-acting CCB and ARB. ISH: LDD/ DHP-CCB/ARB. Combination therapies generally necessary to achieve target BP. • Consider Rx ASA (once BP controlled) and statin in HTN patients if ≥ 3 CV risks. • CHF&HTN-Rx β-blocker; ACE-I (ARB if ACE-I intolerant) & aldosterone antagonist (Class III/IV HF or post MI) • CKD or Type 2 DM with micro-albuminuria, proteinuria or nephropathy ACE-I/ARB are 1st line Rx. Combination of ACE-I and ARB not recommended in non-proteinuric CKD. • In DM if ACE combination therapy required: ACE-DHP CCB preferable to ACE-thiazide combinations (ACCOMPLISH) 															
	Diabetes <i>CDA 2008</i> <i>Guidelines</i> <i>Released Sept. 2008</i>	<ul style="list-style-type: none"> • Dx DM: FBG ≥ 7.0 mmol/L or 2 hr PC Glucose ≥ 11.1 mmol/L. (Normal: A1c ≤ 6; FBG 4-6 mmol/L; 2 hr PC Glucose 5-8 mmol/L.) Dx Impaired Fasting Glucose: 6.1-6.9 mmol/L. Dx Impaired Glucose Tolerance: 2 hr PC Glucose 7.8-11 mmol/L. • Target euglycemia ASAP. Initiate diet to achieve weight loss (5-10%), diabetes education & exercise program. Target A1C ≤ 7; FBG 4-7 mmol/L; 2 hr PC Glucose 5-10 mmol/L. Rx oral hypoglycemic for FBG ≥ 7.0 mmol/L & A1C 7-9. Consider initial combination Rx for A1c ≥ 9. • Aggressive BP control. Target <130/80 Rx ACE-i, ARB, DHP-CCB, thiazide diuretic, then cardio-selective β blocker or non-DHP-CCB. Alpha blockers not recommended as first line agent. 															

CARDIOVASCULAR RISK REDUCTION CHECKLIST

Rx ✓	Intervention	Recommendations
	Physical activity: Min. goal 30 minutes 6 to 7 times/week Cumulative 200 mins./week <i>HR guided</i>	<ul style="list-style-type: none"> Assess risk, preferably with exercise test, to guide prescription. Encourage minimum of 30-40 minutes of moderate intensity activity 3 to 5 times weekly (walking, jogging, cycling or other aerobic activity) supplemented by an increase in daily lifestyle activities (e.g., walking breaks at work, using stairs, gardening, household work) Max benefits 5 to 6 hours per week. Medically supervised programs for moderate to high-risk patients.
	Obesity/weight management:	Start intensive diet and appropriate physical activity intervention, as outlined above, in patients >120% of ideal weight for height. Particularly emphasise need for weight loss in patients with hypertension, elevated triglycerides or elevated glucose levels. Ideal body weight BMI < 25
	Antiplatelet agents/ anticoagulants:	Start aspirin 81-325 mg per day if not contraindicated. Consider clopidogrel 75mg OD post MI, post CABG, CVA, PVD in ASA intolerant or allergic patients <i>CAPRIE Trial</i> . Consider clopidogrel 75mg OD + ASA for ACS: unstable angina/non-ST elevation MI <i>CURE Trial</i> : duration of therapy 9-12 months. No chronic benefit of ASA+ clopidogrel <i>CHARISMA</i> . Newer anti platelet agents which may replace clopidogrel include prasugrel (Effient) <i>TRITON-TIMI 38</i> and ticagrelor (Brilinta) <i>PLATO</i> . Consider warfarin for post MI patients unable to take aspirin (maintain INR 2-3).
	ACE inhibitors/ARBs Post MI/LV Dysfunction:	Start early post-MI in stable high risk patients (anterior MI, previous MI, Killip class II (S3 gallop, rales, radiographic CHF). Continue indefinitely for all with LV dysfunction (EF<40%) or symptoms of CHF. Use as needed to manage HPT or symptoms in all other patients. Valsartan in ACE intolerant patients <i>VALIANT</i>
	ACE inhibitors/ARBs Vascular Disease/ Diabetes	Rx ACE inhibitors in all patients >55 yrs with evidence of vascular disease or DM and one other risk factor: <i>HOPE Trial</i> - Ramipril 2.5 → 10 mg OD or all CAD patients >18 yrs <i>EUROPA Trial</i> -Perindopril 4 → 8 mg OD. If LVF preserved, patient non diabetic and other risk factors optimized may not need ACE inhibitor <i>PEACE</i> .
	Beta-blockers: Post-MI	Start acutely or within a few days of event in all post-MI patients (unless contra-indication). Continue indefinitely if residual ischemia, heart failure LV dysfunction or severe co-morbidity. Continue indefinitely in low risk patients (IIa). Rx as needed to manage angina, arrhythmia or HPT. Increased risk of heart failure with increasing doses above 25 mg. BID in the elderly.
	Beta-blockers: CHF	Rx Add Beta-blocker to ACE-inhibitor/diuretic/+/- digoxin in stable Class II-IV CHF/LVEF ≤ 40% Bisoprolol 1.25 → 10 mg OD, carvedilol 3.125 mg BID → 25 mg BID (50 mg BID if weight > 85 kg) or metoprolol 12.5 mg → 75-100 mg BID
	Omega-3 fatty acids HOMOCYST(E)INE	Rx: Omega-3 fatty acids 1-3 gm/day . No identifiable benefit in lowering elevated homocysteine with vitamin supplements combining folic acid, B6 and B12 in patients with CVD, DM or post MI. <i>HOPE 2/NORVIT</i> .
	Estrogens	HRT not recommended for 1° or 2° prevention. Stop HRT in ACS, MI, PTCA, CABG, CHF, other surgery.

Other Information and Diet Sheets Available:

- Dyslipidemia Package
- Diet for Type 2 Diabetes
- Diet for Hypertension
- Diet for Congestive Heart Failure
- Potassium Replacement Diet
- Weight Management

Please visit www.ottawacvcentre.com for more information.

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www.cvtoolbox.com

Discharge Summary February 2010
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CV RISK FLOWSHEET

Rx (✓)	Risk Intervention	Date ✓ Achieved	Date ✓ Achieved	Date ✓ Achieved	Date ✓ Achieved	Date ✓ Achieved	Date ✓ Achieved
	Ideal body weight: BMI < 27 kg/m ² (ideally < 25 kg/ m ²)						
	Girth: Targets M < 94 cm (37 inches); F < 88cm (34.6 inches). Lower in South Asians M < 90 cm and F < 80 cm. W/H M < 0.95; F < 0.9.						
	Physical activity: Minimum goal > 200 min./week						
	Smoking Goal: Complete cessation						
	Lipid Management:						
	<i>Primary goal:</i> LDL < 2.0 (1.8) mmol/L or ≥ 50% LDL ↓						
	<i>Secondary goal:</i> TC/HDL < 4; Apo-B < 0.8 g/L						
	Metabolic Syndrome HDL ≥ 1.0 mmol/L M HDL ≥ 1.3 mmol/L F						
	TG < 1.7 mmol/L						
	Apo B: <i>Hi risk</i> < 0.8 g/L; <i>Mod risk</i> < 1.05 g/L; <i>Low risk</i> < 1.2 g/L						
	Blood pressure: Targets <135/85 mm Hg for HBPM/ABPM <130/80 mm Hg for DM/CAD/CKD <120/80 mm Hg for LVD						
	Diabetes: Targets FBS 4-6 mmol/L 2hr PC Glucose 5-10 mmol/L HbA1C ≤ 7%						
	MAU: Targets Spot urine < 20/mg/L ACR < 2.0 Men ACR < 2.8 Women						
	Antiplatelet agents: ASA or Plavix						
	Anticoagulants: Target INR _____						
	ACE inhibitor/ARBs: Post-MI						
	ACE inhibitor/ARBs: Vascular protection/CAD						
	Beta-blockers: Post-MI						
	Beta-blockers CHF/LV Dysfunction: LVEF < 40%						
	Rx: Omega-3 fatty acids (salmon oil or flax) 1-3 gm/day						
	LP(a) < 30 mg/dL						
	hs-CRP High risk > 3.0 mg/L; Mod risk 1.0-3.0 mg/L; Low risk < 1.0 mg/L						
	HRT: Off						