OntarioMD Inc.

Electronic Medical Records

SPECIFICATION

Appendix C – Chronic Disease Management Requirements

FINAL

Date: January 17, 2011
Version: 4.0

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1. INTRODUCTION

1.1 SCOPE / PURPOSE OF THE DOCUMENT

The following Appendix defines high level specifications and discrete data elements for Chronic Disease Management. The in-scope diseases are Diabetes, Asthma, Heart Failure, Chronic Obstructive Pulmonary and Hypertension.

OntarioMD, in collaboration with the MOHLTC defined these requirements to support the movement of data from the EMR to external applications which may require this information from physicians.

This data will be potentially be used for:

- Export to registries
- Disease tracking and reporting
- Supporting information for the continuity of patient care

1.2 DEFINITIONS, ACRONYMS AND ABBREVIATIONS

TERM	MEANING
CDM	**C**hronic **D**isease **M**anagement
COPD	**C**hronic **O**bstructive **P**ulmonary **D**isease
MOHLTC	**M**inistry **O**f **H**ealth and **L**ong-**T**erm **C**are
SOAP	**S**ubjective, **O**bjective, **A**ssessment, and **P**lan. The SOAP note is a format for documenting patient encounters.

1.3 RELATED DOCUMENTS AND REFERENCES

The following table lists all documents related to current appendix:

DOCUMENT NAME	VERSION	DATE
EMR Document Mapping	1.0	17-Jan-2011
Appendix A - EMR Baseline Requirements	Final / v4.0	17-Jan-2011
Appendix B –Data Portability Requirements	Final / v4.0	17-Jan-2011
Appendix D – Reporting of Diabetes Data Requirements	Final / v4.0	17-Jan-2011
MOHLTC Diabetes Management Incentive Fact Sheet	Vol 32, Suppl 1	Aug-2009
The Canadian Diabetes Association (CDA) 2008 Clinical Practice Guidelines (CPGs)	N/A	Sept-2008
MOHLTC Heart Failure Management Incentive	N/A	April-2008
GAC Guidelines	N/A	N/A
BC CDM Physician Toolkit	N/A	N/A

2. CHRONIC DISEASE MANAGEMENT REQUIREMENTS

TERMINOLOGY:

Care Element means a discrete piece of information related to chronic disease care.
Comparison of dated entries from different sources (e.g. from different labs) may require some logic which must be managed by the vendor.
Care elements are characterized by one or more of the following attributes:

- Care Element Name;
- Treatment Target;
- Treatment Interval;

Chronic disease care elements are not currently standardized, and vendors may implement as consistent with their product. However, the reporting functionality as defined in Appendix D will require standardized export of care element information related to diabetes.

Treatment Interval means the recommended time interval for testing or recording a care element.
A treatment interval determines how often a care element should be monitored by a provider, based on evidence-based guidelines for chronic disease care elements.

Treatment Target refers to the treatment goal associated with the care element.
A target is usually defined by a range (e.g. HbA1c <= 7.0), but may also refer to a specific value (e.g. Foot exam completed = Yes). Treatment targets are based on evidence-based guidelines for chronic disease care elements.

This specification does not define a user interface terminology for chronic disease management. Rather, it describes:

- Data requirements for chronic disease management; and
- Decision support requirements.

Vendors are expected to leverage their existing user interface and system workflow in order to best provide this functionality to their users.

This section consists of the chronic disease management requirements for a certified Offering.

Scoring Key: **M** = Mandatory criteria for certification
W = Weighted criteria

Status Key: **N** = New requirement for EMR Specification v4.0
P = Previous requirement from CMS Specification v3.0
U = Updated from a previous CMS Specification v3.0
R = Retired from previous CMS Specification 3.0

Requirement	Guidelines	M/W	Status	Discussion/Comments
a) Provides the ability to capture dated entries for Diabetes care elements, as described in section 3.1 – Diabetes Care Elements.	Differences in baseline care elements and their attributes may exist for different patients due to factors such as age, gender, etc.	M	P	Care elements in section 3.1 are an initial list of disease-related data to be captured within the EMR Offering. This is not intended to be a comprehensive list of all data elements related to a disease.
b) Provides the ability to capture dated entries for Asthma care elements, as described in section 3.2 – Asthma Care Elements.	Differences in baseline care elements and their attributes may exist for different patients due to factors such as age, gender, etc.	M	P	Care elements in section 3.2 are an initial list of disease-related data to be captured within the EMR Offering. This is not intended to be a comprehensive list of all data elements related to a disease.
c) Provides the ability to capture dated entries for Heart Failure care elements, as described in section 3.3 – Heart Failure Care Elements.	Differences in baseline care elements and their attributes may exist for different patients due to factors such as age, gender, etc.	M	P	Care elements in section 3.3 are an initial list of disease-related data to be captured within the EMR Offering. This is not intended to be a comprehensive list of all data elements related to a disease.
d) Provides the ability to capture dated entries for Chronic Obstructive Pulmonary Disease (COPD) care elements, as described in section 3.4 – Chronic Obstructive Pulmonary Disease Care Elements.	Differences in baseline care elements and their attributes may exist for different patients due to factors such as age, gender, etc.	M	P	Care elements in section 3.4 are an initial list of disease-related data to be captured within the EMR Offering. This is not intended to be a comprehensive list of all data elements related to a disease.
e) Provides the ability to capture dated entries for Hypertension care elements, as described in section 3.5 – Hypertension Care Elements.	Differences in baseline care elements and their attributes may exist for different patients due to factors such as age, gender, etc.	M	P	Care elements in section 3.5 are an initial list of disease-related data to be captured within the EMR Offering. This is not intended to be a comprehensive list of all data elements related to a disease.
f) Provides the ability to allow users to add care elements for the purpose of chronic disease tracking. At a minimum, addition of care elements treatment targets can occur: • For a single patient to individualize care. • For all patients of a clinician to customize to their practice.	Patient's set-up takes precedence over provider's set-up as relates to the adding new care elements. Users must be able to add: • Lab Results (e.g. additional urine tests to be tracked by the provider); and • Clinical documentation captured within discrete fields.	M	P	

Requirement	Guidelines	M/W	Status	Discussion/Comments
g) Provides the ability to allow users to remove care elements for the purpose of chronic disease tracking. At a minimum, removal of care elements treatment targets can occur: • For a single patient to individualize care. • For all patients of a clinician to customize to their practice.	Patient's set-up takes precedence over provider's set-up as relates to the removing of a care element. Example: A patient is a non-smoker, so the physician does not want smoking status to appear within chronic disease.	W	P	
h) The system provides visual alert(s) to the user when recorded chronic disease care elements for a patient, with a relevant diagnosis, are outside of treatment target or treatment interval. Initial set-up for treatment targets are described in Sections 3.1 through 3.5. User must be able to disable alert upon examination of patient's chronic disease data.	Pop-up alerts that may disrupt the flow of a patient encounter are not recommended. Creating a task will not satisfy this requirement. Intent of the requirement is to inform a provider that some care element(s) may require attention for a patient diagnosed with a chronic disease. Examples: • Flag to indicate to provider that one or more care elements are out of target for a diabetic patient. • Visual flag to indicate to a provider that Spirometry is past due for an asthmatic patient.	M	P	Initial set-up for treatment targets based on established guidelines at the time of EMR Specification v3.2 publication. Treatment targets are independent of lab result normal ranges, etc.
i) Provides the ability for the user to modify the treatment targets for chronic disease care elements. At a minimum, modification of treatment targets can occur: • For a single patient to individualize care. • For all patients of a clinician to customize to their practice.	Must apply to out-of-box and custom defined care elements. In order for this requirement to be met this must be user-administered and does not require an EMR vendor to attend the process. Patient's set-up takes precedence over provider's set-up as relates to the adding new care elements.	M	P	Ongoing research supporting the evolution of evidence based care requires the ability to customize treatment targets to reflect current best practices (Example: changes to clinical practice guidelines for diabetes).
j) Provides the ability for the user to modify the recommended treatment intervals for chronic disease care elements. At a minimum, modification of treatment intervals can occur: • For a single patient to individualize care. • For all patients of a clinician to customize to their practice.	Must apply to out-of-box and custom defined care elements. In order for this requirement to be met this must be user-administered and does not require an EMR vendor to attend the process. Patient's set-up takes precedence over provider's set-up as relates to the adding new care elements.	M	P	Ongoing research supporting the evolution of evidence based care requires the ability to customize treatment intervals to reflect current best practices (Example: changes to clinical practice guidelines for diabetes).

Requirement	Guidelines	M/W	Status	Discussion/Comments
k) Provides the ability to associate co-morbid conditions from the patient's problem list with diabetes, asthma, COPD, heart failure, or hypertension diagnoses.	Co-morbid conditions are defined as other problems or diagnoses which the provider may want to be aware of when treating another condition (e.g. depression as a co-morbid condition for diabetes) Co-morbid conditions list must be clearly viewable from the system interface.	W	P	
l) Data entered from any chronic disease data entry interface automatically populate the progress note for the current encounter.	Data entered from a chronic disease interface must also be reflected in the notes. User should not be forced to re-enter data. Example: data entered in a chronic disease flowsheet creates a progress note.	M	P	
m) Chronic Disease care element information entered from EMR data fields (encounter notes, lab results, vital signs), etc. automatically creates the appropriate dated entry/ entries for CDM.	Data entered from encounter documentation must also be reflected in the chronic disease data views, with the encounter date as the date for the entry, unless otherwise specified. Example: Blood pressure captured in a SOAP note populates the dated entries for a patient with diabetes and COPD.	M	P	
n) Supports the construction of ad hoc reports for chronic disease care elements and dated entries. Ad hoc reports across the entire patient population contained within the EMR. Ad hoc reports across one or more cohorts as defined in Appendix A / 2.1.1 (f).	In order for this requirement to be met this must be user-administered and does not require an EMR vendor to attend the process. User must be able to select a date range for dated entries. At a minimum, ad hoc reporting functionality should allow for selection of reported fields, and allow for filtering based on Boolean logic. Example: Display name, date of latest HbA1c test, and latest HbA1c result of all patients with a diagnosis of Type 1 or Type 2 diabetes on a specified medication.	M	P	Updated Requirement
o) System provides chronic disease management flowsheets per the effective MOHLTC incentive guidelines.	Refer to MOHLTC incentive requirements.	M	P	

Requirement	Guidelines	M/W	Status	Discussion/Comments
p) Allows for the construction of chronic disease flowsheets. Includes tracking of dated entries for selected chronic disease care elements over time. Users must be able to save the list of data elements to be displayed in a flowsheet for future re-use. Flowsheets must be printable.	Flowsheets must clearly display the date, and the recorded data for chronic disease care elements. Flowsheets should allow for a date-range selection for which dated entries to display. Systems are expected to provide a view allowing for the analysis of multiple dated entries, for multiple chronic disease care elements, as selected by the user.	M	P	
q) Provides additional views of chronic disease information to accommodate user preferences to support the provision of care. • Out of range view – highlighting only those care elements outside of treatment target, or outside of interval per chronic disease. • Latest entry view – display based on latest dated entry/entries for each chronic disease care element • Other views of data providing decision support to the user.	To satisfy this requirement, the system must support at least an out-of-range view, and latest entry view of chronic disease information.	W	P	
r) Provide the ability to view and print the information for a patient's dated entries for selected chronic disease care element(s) by a selected number of previous dated entries, or over a selected time span.	Views are for a single patient. Examples: • Display all HbA1c results over the past two years. • Display the last three LDL-C results.	W	U	Changed Scoring from Mandatory to Weighted.

3. CHRONIC DISEASE CARE ELEMENTS

3.1 DIABETES CARE ELEMENTS

The table below defines the baseline care elements to be captured by certified EMR offerings related to diabetes. This is not a comprehensive list of all care elements to be tracked with respect to diabetes, but an initial setup for EMR users to get started in tracking against this chronic disease. This table is also not meant to define the display of the care elements within the EMR. Vendors are expected to leverage their existing user interfaces or workflows to best accommodate the capture of dated entries.

Where initial setup treatment target or initial setup treatment interval is indicated as N/A, this means there is no initial setup target or interval. However, users are expected to have the ability to create their own targets or intervals, if desired.

Referenced Sources included: MOHLTC Diabetes Management Incentive, GAC Guidelines, BC CDM Physician Toolkit.

Table 1: Diabetes Care Elements

OMD #	Element of Care	Initial Setup - Treatment Target	Initial Setup - Treatment Interval	Comments/Explanatory Notes
Lab Values				
1	HbA1C (Glycated Haemoglobin)	<= 7.0%	3 months	Assessed every 3-6 months or as clinically indicated.
2	Fasting Plasma Glucose/AC (or Preprandial Glucose)	4 - 7 mmol/L	3 months	Assessed every 3-6 months or as clinically indicated.
3	2 hr PC BG	5 - 10 mmol/L	3 months	Assessed every 3-6 months or as clinically indicated.
4	LDL-C	<= 2.0 mmol/L	Annual	Assessed every 1-3 years or as clinically indicated.
5	HDL-C		Annual	Assessed every 1-3 years or as clinically indicated.
6	TC:HDL-C Ratio	< 4.0	Annual	Assessed every 1-3 years or as clinically indicated.
7	Triglycerides	< 2.0 mmol/L	Annual	Assessed every 1-3 years or as clinically indicated.
8	Random Urinary ACR (Albumin to Creatinine Ratio)	Male < 2.0 mg/mmol Female < 2.8 mg/mmol	Annual	
9	eGFR	N/A	Annual	Or within 2 weeks of starting an ACE I or ARB. Then periodically.
Clinical Documentation *(Where applicable, possible representation of the care element is provided in brackets following the care element)*				
10	Self Monitoring BG *(Yes/No)*	Yes	3 months	Assessed every 3-6 months or as clinically indicated.. Patient Report of whether they are self-monitoring their blood glucose.
11	# Of Hypoglycemic Episodes (Since last assessed)	Frequency of Episodes = 0	3 months	Assessed every 3-6 months or as clinically indicated.
12	Blood Pressure	< 130/80 mmHg	3 months	Assessed every 3-6 months or as clinically indicated.
13	Height	N/A	N/A	

OMD #	Element of Care	Initial Setup - Treatment Target	Initial Setup - Treatment Interval	Comments/Explanatory Notes
14	Weight	N/A	N/A	
15	BMI (Body Mass Index)	18.5 - 24.9 kg/m²	3-6 months	Assessed every 3-6 months or as clinically indicated.
16	Waist Circumference	Male < 40" (102 cm) Female < 35" (88 cm)	3-6 months	Assessed every 3-6 months or as clinically indicated.
17	Smoking Status *(Yes/No)*	N/A	N/A	If smoking status is tracked in risk factors, user must still be able to create a treatment target or treatment interval for decision support.
18	Smoking Packs per Day	N/A	N/A	Packs per day smoked as reported by patient.
19	Dilated Eye Exam (Retinal Exam)	N/A	Annual	Eye Examination: 5 years after diagnosis of Type 1 in all individuals 15 years and over. All individuals at diagnosis of Type 2 diabetes.
20	Foot Exam	N/A	Annual	Performed annually or more often if clinically indicated. All patients should be instructed on proper foot care.
21	Neurological Exam: ▪ 10-g monofilament or ▪ 128 Hz tuning fork D1	N/A	Annual	Complete annually after diagnosis for Type 2; after 5 years for Type 1.
22	Fasting Glucose Meter – lab result comparison *(Calibrated Yes/No)*	N/A	Annual	
23	Education – Diabetes *(Yes/No)*	N/A	Annual	Each item re: education counseling could be within a single selection list, or separate items.
24	Education – Nutrition (lipids) *(Yes/No)*	N/A	Annual	
25	Education – Nutrition (diabetes) *(Yes/No)*	N/A	Annual	
26	Motivational Counseling Completed – Nutrition *(Yes/No)*	N/A	3-6 months	Each item re: motivational counseling could be within a single selection list, or separate items.
27	Motivational Counseling Completed – Exercise *(Yes/No)*	N/A	3-6 months	
28	Motivational Counseling Completed – Smoking Cessation *(Yes/No)*	N/A	3-6 months	
29	Motivational Counseling – Other *(Yes/No)*	N/A	3-6 months	
30	Collaborative Goal Setting/Self-Management Goals *(Indicate Goal)*	N/A	3-6 months	Documented Self-Management Goals

OMD #	Element of Care	Initial Setup - Treatment Target	Initial Setup - Treatment Interval	Comments/Explanatory Notes
31	Self Management Challenges/Barriers to Self Management *(Indicate Challenge)*	N/A	3-6 months	Documented Self Management Challenges/Barriers to Self Management
32	ASA (Acetylsalicylic acid) Use *(Yes/No)*	N/A	N/A	May potentially be tracked within the medications module if over-the-counter meds are included in this module
33	Influenza Vaccine	N/A	Annually	
34	Pneumococcal Vaccine	N/A	N/A	
35	Erectile Dysfunction	N/A	Annual	
36	ECG	N/A	Biennial	
37	Psychosocial Screening	N/A	N/A	

3.2 ASTHMA CARE ELEMENTS

The table below defines the baseline care elements to be captured by certified EMR offerings related to asthma. This is not a comprehensive list of all care elements to be tracked with respect to asthma, but an initial setup for EMR users to get started in tracking against this chronic disease. This table is also not meant to define the display of the care elements within the EMR. Vendors are expected to leverage their existing user interfaces or workflows to best accommodate the capture of dated entries.

Where initial setup treatment target or initial setup treatment interval is indicated as N/A, this means there is no initial setup target or interval. However, users are expected to have the ability to create their own targets or intervals, if desired.

Referenced Sources included: Lung Association Asthma Care Map for Primary Care.

Table2: Asthma Care Elements

OMD #	Element of Care	Initial Setup - Treatment Target	Initial Setup - Treatment Interval	Comments/Explanatory Notes
Clinical Documentation *Where applicable, possible representation of the care element is provided in brackets following the care element*				
38	Asthma Limits Physical Activity *(Yes/No)*	No	N/A	
39	Needs Reliever *(Frequency/Week)*	< 4 doses/week or < 2 times/week	N/A	
40	Asthma Symptoms (dyspnea, cough, wheeze, chest tightness) *(Frequency/Week)*	< 4 days/week	N/A	
41	School/Work Absence since last office visit *(Yes/No)*	No	N/A	
42	Night time symptoms/week	0	N/A	
43	FEV1 (Forced Expiratory Volume in 1 Second) or PEFR (Peak Expiratory Flow Rate) <= 90% personal or predicted best *(Yes/No)*	No	N/A	
44	Exacerbations since last visit requiring clinical evaluation *(Yes/No)*	No	N/A	Hospital admission, Emergency Department visit, Walk-in Clinic
45	Spirometry	N/A	N/A	
46	PEFR value *(Litres/min) (best of 3)*	N/A	N/A	Recommended Every Visit

OMD #	Element of Care	Initial Setup - Treatment Target	Initial Setup - Treatment Interval	Comments/Explanatory Notes
47	Review – Asthma Definition *(Yes/No)*	N/A	N/A	
48	Review – Medication Adherence *(Yes/No)*	N/A	N/A	
49	Review – Device technique optimal *(Yes/No)*	N/A	N/A	
50	Smoking Cessation (If Applicable)	Yes	N/A	
51	Asthma Trigger Avoidance	N/A	N/A	
52	Environmental Control	N/A	N/A	
53	Coping Strategies	N/A	N/A	
54	Action Plan *(Provided / Revised / Reviewed)*	Provided / Revised / Reviewed	N/A	
55	Asthma Education Referral	N/A	N/A	
56	Specialist Referral	N/A	N/A	

3.3 HEART FAILURE CARE ELEMENTS

The table below defines the baseline care elements to be captured by certified EMR offerings related to heart failure. This is not a comprehensive list of all care elements to be tracked with respect to heart failure, but an initial setup for EMR users to get started in tracking against this chronic disease. This table is also not meant to define the display of the care elements within the EMR. Vendors are expected to leverage their existing user interfaces or workflows to best accommodate the capture of dated entries.

Where initial setup treatment target or initial setup treatment interval is indicated as N/A, this means there is no initial setup target or interval. However, users are expected to have the ability to create their own targets or intervals, if desired.

Referenced Sources: MOHLTC Heart Failure Incentive

Table3: Hearth Failure Care Elements

OMD #	Element of Care	Initial Setup - Treatment Target	Initial Setup - Treatment Interval	Comments/Explanatory Notes
	Lab Values			
57	Na+ (serum sodium)	N/A	N/A	
58	K+ (serum potassium)	N/A	N/A	
59	Serum Creatinine	Male < 110 umol/L Female < 90 umol/L	N/A	
60	eGFR	Caution if < 60 mL/min	N/A	
Clinical Documentation *(Where applicable, possible representation of the element is provided in brackets following the care element)*				
61	Weight	N/A	N/A	
62	Symptoms of Heart Failure – Fatigue, Dizziness and/or Syncope, Dyspnea on Exertion, Dyspnea at Rest, Orthopnea, Paroxysmal Nocturnal Dyspnea	N/A	N/A	Each symptom should be independently identifiable.
63	NYHA (New York Heart Association) Functional Capacity Classification	N/A	N/A	Class I – no symptoms; Class II – symptoms with ordinary activity; Class III – symptoms with less than ordinary activity; Class IV – symptoms at rest.
64	Blood Pressure	N/A	N/A	
65	Heart Rate	N/A	N/A	
66	JVP (Jugular Venous Pressure) Elevation *(Yes/No)*	N/A	N/A	
67	Pitting Edema *(Yes/No)*	N/A	N/A	
68	Pitting Edema *(location)*	N/A	N/A	

OMD #	Element of Care	Initial Setup - Treatment Target	Initial Setup - Treatment Interval	Comments/Explanatory Notes
69	Lung Crackles and/or wheezing *(Yes/No)*	N/A	N/A	
70	Lung Crackles and/or wheezing *(location)*	N/A	N/A	
72	# ER (Emergency Room) Visits for HF since last assessment	0	N/A	
73	Education – Patient medication use *(Yes/No)*	N/A	N/A	Each item in education counseling could be within a single selection list, or separate items.
74	Education – Salt/Fluid vigilance *(Yes/No)*	N/A	N/A	
75	Education – Daily weight monitoring *(Yes/No)*	N/A	N/A	
76	Education – Exercise/activity *(Yes/No)*	N/A	N/A	
77	Target Modifiable Risk Factors for Heart Failure and Coronary Artery Disease – Hypertension *(Yes/No)*	N/A	N/A	Each item re: target modifiable risk factors could be within a single selection list, or separate items.
78	Target Modifiable Risk Factors for Heart Failure and Coronary Artery Disease – Smoking *(Yes/No)*	N/A	N/A	
79	Target Modifiable Risk Factors for Heart Failure and Coronary Artery Disease – Diabetes *(Yes/No)*	N/A	N/A	
80	Target Modifiable Risk Factors for Heart Failure and Coronary Artery Disease – Overweight/obesity *(Yes/No)*	N/A	N/A	
81	Target Modifiable Risk Factors for Heart Failure and Coronary Artery Disease – Hyperlipidemia *(Yes/No)*	N/A	N/A	
82	Collaborative Goal Setting *(Indicate Goal)*	N/A	N/A	
83	Self Management Challenge *(Indicate Challenge)*	N/A	N/A	
84	Consider ASA	N/A	N/A	
85	Signs of Pharmacological Intolerance	N/A	N/A	

3.4 CHRONIC OBSTRUCTIVE PULMONARY DISEASE CARE ELEMENTS

The table below defines the baseline care elements to be captured by certified EMR offerings related to COPD. This is not a comprehensive list of all care elements to be tracked with respect to COPD, but an initial setup for EMR users to get started in tracking against this chronic disease. This table is also not meant to define the display of the care elements within the EMR. Vendors are expected to leverage their existing user interfaces or workflows to best accommodate the capture of dated entries.

Where initial setup treatment target or initial setup treatment interval is indicated as N/A, this means there is no initial setup target or interval. However, users are expected to have the ability to create their own targets or intervals, if desired.

Referenced Sources: GAC Guidelines, BC CDM Toolkit

Table4: Chronic Obstructive Pulmonary Disease Care Elements Care Elements

OMD #	Element of Care	Initial Setup - Treatment Target	Initial Setup - Treatment Interval	Comments/Explanatory Notes
Clinical Documentation *(Where applicable, possible representation of the care element is provided in brackets following the care element)*				
86	Spirometry Results (FEV 1% of Predicted)	N/A	N/A	
87	COPD Classification (Based on Spirometry Results)	N/A	N/A	Mild: FEV1 >= 80% predicted; Moderate: 50% <= FEV1 < 80% predicted; Severe: 30% <= FEV1 < 50% predicted; Very Severe : FEV1 < 30% predicted
88	O_2 Saturation *(%)*	N/A	N/A	
89	Recommend ABG (Arterial Blood Gas) *(Yes/No/Not applicable)*	N/A	N/A	
90	Smoking Status *(Yes/No)*	N/A	N/A	If smoking status is tracked in risk factors, user must still be able to create a treatment target or treatment interval for decision support.
91	Smoking Cessation Discussed	N/A	N/A	
92	Smoking Cessation Program	N/A	N/A	
93	BMI	=< 27 kg/m^2	N/A	
94	Review need for supplemental O_2	N/A	Annual	
95	Review need for nocturnal ventilated support	N/A	Annual	
96	Specialist Referral *(Yes/No)*	N/A	N/A	

OMD #	Element of Care	Initial Setup - Treatment Target	Initial Setup - Treatment Interval	Comments/Explanatory Notes
97	Review pathophysiology, prognosis, treatment with patient	N/A	6 months	
98	Patient sets physical activity goal *(Yes/No)*	N/A	6 months	
99	Review medication use and side effects with patient	N/A	6 months	
100	Provide patient education materials *(Yes/No)*	N/A	N/A	
101	Pulmonary Rehabilitation Referral *(Yes/No)*	N/A	N/A	
102	Exacerbation plan in place/reviewed *(Yes/No)*	Yes	6 months	
103	Date of Last Exacerbation	N/A	N/A	
104	Influenza Vaccine	N/A	Annually	
105	Pneumococcal Vaccine	N/A	N/A	

3.5 HYPERTENSION CARE ELEMENTS

The table below defines the baseline care elements to be captured by certified EMR offerings related to hypertension. This is not a comprehensive list of all care elements to be tracked with respect to hypertension, but an initial setup for EMR users to get started in tracking against this chronic disease. This table is also not meant to define the display of the care elements within the EMR. Vendors are expected to leverage their existing user interfaces or workflows to best accommodate the capture of dated entries.

Where initial setup treatment target or initial setup treatment interval is indicated as N/A, this means there is no initial setup target or interval. However, users are expected to have the ability to create their own targets or intervals, if desired.

Referenced Sources included: GAC Guidelines, BC CDM Toolkit, JNC 7, CHEP 2007

Table 5: Hypertension Care Elements

OMD #	Element of Care	Initial Setup - Treatment Target	Initial Setup - Treatment Interval	Comments/Explanatory Notes
Lab Values				
106	Fasting Glucose	<= 6.0 mmol/L	N/A	
107	Urinary Microalbumin Screen (ACR)	Male < 2.0 Female < 2.8	2 Years	Target = Every 2 years BP < 160; Annually if BP >= 160
108	eGFR ml/min/1.73m²;	N/A	Annual	
109	TC:HDL-C Ratio	< 5.0	N/A	Target = < 4.0 High Risk CAD; < 5.0 Moderate Risk CAD
110	LDL-C	< 3.5 mmol/L	N/A	< 2.5 mmol/L High Risk < 3.5 mmol/L Moderate Risk
111	Triglycerides	N/A	N/A	
Clinical Documentation *(Where applicable, possible representation of the care element is provided in brackets following the care element)*				
112	Blood Pressure	=< 140/90 mmHg	N/A	Blood pressure is out of target if either systolic or diastolic BP is out of target
113	Smoking *(Yes/No)*	N/A	N/A	
114	Smoking Packs/Day	N/A	N/A	
115	Exercise/Activity Level *(Reviewed/Not Reviewed)*	N/A	N/A	
116	Salt Intake *(Reviewed/Not Reviewed)*	N/A	N/A	

OMD #	Element of Care	Initial Setup - Treatment Target	Initial Setup - Treatment Interval	Comments/Explanatory Notes
117	Alcohol Use *(# drinks/week)*	Risk: Male > 14 drinks/week; Female > 8 drinks/week	N/A	
118	Waist Circumference	Male < 100 cm Female < 90 cm	N/A	
119	Weight	N/A	N/A	
120	Height	N/A	N/A	
121	BMI	18.5 to 24.9 kg/m²	N/A	
122	Self Management Goal	N/A	N/A	
123	Self Management Challenge	N/A	N/A	
124	Review of medication use and side effects	N/A	N/A	
125	10 Year CAD Risk (Framingham) in patients with no diabetes.	N/A	N/A	High Risk >= 20%, target TC/HDL=4; Moderate Risk< 20%, target TC/HDL=5

4. RETIRED REQUIREMENTS / CHRONIC DISEASE CARE ELEMENTS

4.1 RETIRED CHRONIC DISEASE MANAGEMENT REQUIREMENTS

The following Chronic Disease Management Requirements have been retired from Appendix C v4.0.

#	Requirement	Guidelines	W/M	Status	Discussion/Comments
2. Chronic Disease Management Requirements					
R1	Allows appropriate access for allied health providers to view or enter CDM information.	May leverage role-based access as identified in Appendix A, Section 2.1.12. – System Access Management.	M	P	

4.2 RETIRED CHRONIC DISEASE CARE ELEMENTS

Following Chronic Disease Care Elements have been retired from Appendix C v4.0

#	Element of Care	Initial Setup - Treatment Target	Initial Setup - Treatment Interval	Comments/Explanatory Notes
3.1	**Diabetes Care Elements**			
R1	Serum Creatinine	N/A	Annual	Or within 2 weeks of starting an ACE I or ARB. Then periodically.
R2	Creatinine Clearance (Cockcroft-Gault)	N/A	Annual	
R3	Waist to Hip Ratio	Male < 0.9 Female < 0.85	3-6 months	Assessed every 3-6 months or as clinically indicated.
R4	AST	N/A	Annual	
R5	ALT	N/A	Annual	