ESP CASE DETECTION ALGORITHM
Hypertension

Document Version 1.2

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Modification History

Version	Date	Modification	By
1.2	10/11/2017	Added ESP Logo and MDPH branding	DPM
1.1	6/30/2017	Transferred to new template	DPM
1.0	7/21/2016	First algorithm (note there is also another doc for undx ht)	

1. Overview

The purpose of this document is to describe the criteria used to identify Hypertension in MDPHnet data.

2. Criteria used to identify cases using ESP data

I.   CASE CRITERIA

Either one of the following:
- Systolic blood pressure ≥140* or diastolic blood pressure ≥90 or both on 2 or more occasions within a one year period
- Diagnosis code for hypertension and (prescription or refill) for at least one antihypertensive medication within one year of hypertension diagnosis code

* if patient age ≥80 then the eligible systolic threshold for hypertension is ≥150mm Hg

II.   ICD-9/ICD-10 CODES FOR CASE CRITERIA

ICD-9	401.x	Essential Hypertension
	405.x	Secondary Hypertension
ICD-10	I10	Essential Hypertension
	I15	Secondary Hypertension

III.   MEDICATIONS FOR CASE CRITERIA

Diuretics	Hydrochlorothiazide
	chlorthalidone
	indapamide
Calcium channel antagonists	amlodipine
	clevidipine
	felodipine
	isradipine
	nicardipine
	nifedipine
	nisoldipine
	diltiazem
	verapamil
Beta-blockers	acebutolol
	atenolol
	betaxolol
	bisoprolol

	carvedilol
	labetolol
	metoprolol
	nadolol
	nebivolol
	pindolol
	propranolol
ACE inhibitors	benazepril
	captopril
	enalapril
	fosinopril
	lisinopril
	moexipril
	perindopril
	quinapril
	ramipril
	trandolapril
Angiotensin receptor blockers	candesartan
	eprosartan
	irbesartan
	losartan
	olmesartan
	telmisartan
	valsartan
Alpha antagonists	clonidine
	doxazosin
	guanfacine
	methyldopa
	prazosin
	terazosin

IV.   TIME WINDOW

Classification of hypertension persists so long as patient has any of the following indicators:
- Measured systolic blood pressure ≥140
- Measured diastolic blood pressure ≥90
- ICD9 or ICD10 code for hypertension
- Prescription for an antihypertensive medication

If a patient has none of the above for ≥2 years, then at the next encounter reclassify as non-hypertensive (i.e. hypertension end-date is at the next encounter ≥730 days from the last encounter with evidence of ongoing hypertension). Note, however, that if the patient's ONLY hypertension indicators have been high systolic or diastolic blood pressure values but they have NEVER had a hypertension diagnosis or prescription for antihypertensive med then reclassify as non-hypertensive at the next encounter ≥365 days from the last recorded elevated systolic or diastolic blood pressure.