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United Indian Health Services  
Blood Pressure Medication  
Titration Program



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Diabetes Programs Manager

# Why a Medication titration program?

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Despite the many antihypertensive medications available, **two-thirds** of patients with hypertension do not achieve blood pressure control.

## Reasons for not being treating to target can be:

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Clients not “feeling sick”

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lack of hypertension health education

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clinical inertia

+

Clients not taking their meds



Uncontrolled hypertension

## **Purpose**

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This protocol is intended to gain more rapid control of blood pressure by allowing titration of medications between clinic visits. This is achieved through a collaborative effort between the medical providers, nurse case managers and outreach workers.

# Step 1- The Medical Provider completes the Blood Pressure Medication Titration Orders

UNITED INDIAN HEALTH SERVICES, INC.

Diabetes Awareness Program

## Blood Pressure Medication Titration Orders

Add/ Titrate Order	Current med?	Medication <i>Brand name Titration schedule(mg) usual starting dose Usual Sig</i>	Start Dose (Mg)	Max Dose (Mg)
		<b>ACE-I</b>		
	<input type="checkbox"/>	Enalapril <i>Vasotec 2.5, 5, 10, 20, 40(2x20)</i> <span style="float:right">QDay</span>		
	<input type="checkbox"/>	Lisinopril <i>Prinivil, Zestril 2.5, 5, 10, 20, 30, 40, 80(2x40)</i> <span style="float:right">QDay</span>		
		<b>ARB</b>		
	<input type="checkbox"/>	Losartan <i>Cozaar 25, 50, 100</i> <span style="float:right">QDay</span>		
	<input type="checkbox"/>	Valsartan <i>Diovan 40, 80, 160, 320</i> <span style="float:right">QDay</span>		
		<b>Diuretics</b>		
	<input type="checkbox"/>	Hydrochlorothiazide (HCTZ) <i>12.5, 25, 50</i> <span style="float:right">QDay</span>		
	<input type="checkbox"/>	Triamterene/HCTZ <i>Dyazide, Maxzide 25/37.5, 50/75</i> <span style="float:right">QDay</span>		
		<b>Ca Channel Blockers</b>		
	<input type="checkbox"/>	Amlodipine <i>Norvasc 2.5, 5, 10</i> <span style="float:right">QDay</span>		
	<input type="checkbox"/>	Nifedipine ER <i>Adalat CC, Procardia XL 30, 60, 90</i> <span style="float:right">QDay</span>		
	<input type="checkbox"/>	Diltiazem ER <i>Cardizem LA 60, 90, 120, 180, 240, 300</i> <span style="float:right">QDay</span>		
	<input type="checkbox"/>	Verapamil ER <i>Calan SR 120, 180, 240</i> <span style="float:right">QDay</span>		
		<b>Beta Blockers</b>		
	<input type="checkbox"/>	Atenolol <i>Tenormin 25, 50, 100</i> <span style="float:right">QDay</span>		
	<input type="checkbox"/>	Labetalol <i>Trandate 100, 200, 300</i> <span style="float:right">BID</span>		
	<input type="checkbox"/>	Metoprolol XL <i>Toprol XL 25, 50, 100, 200, 400(2x200)</i> <span style="float:right">QDay</span>		
	<input type="checkbox"/>	Propranolol ER <i>Inderal LA 60, 80, 120, 160</i> <span style="float:right">QDay</span>		
		<b>Central agents</b>		
	<input type="checkbox"/>	Clonidine – oral <i>Catapres 0.1, 0.2, 0.3, 0.6(2x0.3), 0.9(3x0.3), 1.2(4x0.3)</i> <span style="float:right">BID</span>		
	<input type="checkbox"/>	Clonidine – patch <i>Catapres – TTS 0.1, 0.2, 0.3, 0.6(2x0.3)</i> <span style="float:right">1x/wk</span>		
		<b>Alpha Blockers</b>		
	<input type="checkbox"/>	Doxazosin <i>Cardura 1, 2, 4, 8, 16(2x8)</i> <span style="float:right">QDay</span>		
	<input type="checkbox"/>	Terazosin <i>Hytrin 1, 2, 5, 10, 20 (2x10)</i> <span style="float:right">QHS</span>		
		<b>Other</b>		
	<input type="checkbox"/>			

Goal SBP is at or under 130 unless alternate goal entered here: \_\_\_\_\_

Titrate medication every 2 weeks until at least 50% of SBP readings are at or under goal range

Lab orders: BMP 2 week(s) after adding/increasing ACE/ARB/Diuretic

Hold titration and contact provider for:

HR less than 50

DBP less than 50

Pre-syncopal/Syncopal episodes

Persistent cough on an ACE-Inhibitor

SBP less than 100

Chest pain/Dyspnea

No medical visit in the last 6 months

Other \_\_\_\_\_

Provider Signature: \_\_\_\_\_ Date: \_\_\_\_\_

This order expires 6 months from the date of signing.

Client Name: \_\_\_\_\_ Client DOB: \_\_\_\_\_ Client MR#: \_\_\_\_\_

## **Step 2**

A referral is sent to the Diabetes Department.

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## **Step 3**

The referral is assigned to the appropriate case manager.

## **Step 4**

Home visit

## **Step 5**

Diabetes Outreach Worker downloads monitor ~ every two weeks.

## **Step 6**

Medications titrated as needed.



**UNITED INDIAN HEALTH SERVICES, INC.**  
**Diabetes Awareness Program**

**Temporary Loan Agreement  
Of Blood Pressure Monitor**

United Indian Health Services, Inc. will loan a Blood Pressure Monitor to client \_\_\_\_\_ for their participation in the Blood Pressure Medication Titration program

The Blood Pressure Monitor is the property of United Indian Health Services, Inc. and any damages or an unreturned monitor will result in the client being charged a replacement cost of \$70. By signing below, both the representative of United Indian Health Services, Inc. and the client \_\_\_\_\_ agree that the borrowing party (client) takes full financial responsibility for the Blood Pressure Monitor while on loan to them.

The return of the Blood Pressure Monitor will be requested when titration of blood pressure medications have been completed.

We acknowledge and accept the terms of this Temporary Loan Agreement:

\_\_\_\_\_  
Client (Borrowing Party) Date: \_\_\_\_\_

\_\_\_\_\_  
United Indian Health Services, Inc. Representative Date: \_\_\_\_\_

# Omron HEM-790IT



# Results

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- 2009 Audit blood pressure control increased 8%.
- 2010 Audit control increased 7%.
- 15% increase in clients with controlled hypertension in less than 2 years.
- Program spread beyond clients with diabetes.