



# HealthLine

## Focus on the Updated ACC/AHA Hypertension Guideline

- by Allen Lefkowitz and Costadina Costianis

**H**igh blood pressure or hypertension (HTN), referred to as a “silent killer”, increases the risk of cardiovascular disease (CVD) and cardiovascular events (e.g., heart failure, stroke, myocardial infarction). Increasing age is a significant risk factor for HTN, as 90% of adults will develop HTN during their lifetime.

In November 2017 the American College of Cardiology (ACC) and the American Heart Association (AHA) released their HTN Guideline – the first official revision in 14 years. This guideline was written in collaboration with nine other national organizations including the American Geriatrics Society and the American Society of Hypertension.

While the definition of normal blood pressure (BP) remains the same, the 2017 ACC/AHA HTN guideline has eliminated the category of “prehypertension” and re-categorized the remaining classes and stages of HTN (see Table 1). While previous definitions meant that 1 in 3 American adults were classified as having HTN, the newer categories result in just under half (46%) of American adults as being hypertensive.

**Table 1. Adult Categories of BP**

BP Category	Systolic BP (SBP) (mm Hg)	Diastolic BP (mm Hg)
<b>Normal</b>	< 120 and	< 80
<b>Elevated</b>	120–129 and	< 80
<b>Hypertension</b>		
Stage 1	130–139 or	80 to 89
Stage 2	≥ 140 or	≥ 90
Hypertensive crisis	> 180 and/or	> 120

Newer trial data (e.g., SPRINT, ACCORD) used to shape these guidelines included a greater number of individuals over 50 years of age. Although many BP goals were tightened to less than 130/80 mm Hg (see Table 2), including for healthier, community-dwelling older adults, this guideline suggests a “clinical judgment, patient preference, and a team-based approach to assess risk/benefit” for older adults (≥ 65 years) who have “a high burden of comorbidity and

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limited life expectancy”. Therefore many older adults in long-term care (LTC) will require individualized BP targets with relaxed goals. It is important to remember to treat the person, not the number, and be aware that elderly LTC residents are vulnerable to adverse effects resulting from over-treatment (e.g., orthostatic hypotension, falls) and under-treatment (e.g., hypertensive crisis, stroke).

**Table 2. Suggested BP Goals**

Risk Factor or Disease State	Goal (mm Hg)
<b>HTN, CVD or 10-year CVD risk of 10% or higher</b>	<b>&lt; 130/80</b>
<b>Prevention of heart failure (HF) in adults with HTN</b>	
<b>Treatment of HTN in HF iwth reduced ejection fraction</b>	
<b>Chronic kidney disease (CKD) and HTN</b>	
<b>Diabetes mellitus (DM) and HTN</b>	
<b>HTN is noninstitutionalized ambulatory older adults</b>	
<b>Treatment of HTN in HF with preserved ejection fraction</b>	<b>SBP &lt; 130</b>
<b>Older adults with multiple comorbidities and limited life expectancy</b>	<b>Individualized goal</b>

Both prevention and treatment should include the consideration of the nonpharmacological interventions outlined below:

Non-pharmacological intervention (as tolerated)	Estimated ↓ in SBP in HTN (mm Hg)
<b>Weight loss</b>	<b>5</b>
<b>Heart healthy diet (e.g., DASH)</b>	<b>11</b>
<b>Sodium reduction</b>	<b>5 to 6</b>
<b>Potassium supplementation</b> [except in CKD or with drugs that reduce potassium excretion (e.g., triamterene, spironolactone)]	<b>4 to 5</b>
<b>Increased physical activity/exercise</b>	<b>4 to 8</b>
<b>Limiting alcohol consumption</b> (max 2 drinks per day for men, 1 drink per day for women)	<b>4</b>

In addition to nonpharmacological interventions, pharmacological treatment often becomes necessary to achieve established goals and to reduce the risk of CVD. Medications are an important part of treatment for those who have already had a cardiovascular event or who are at high risk of heart attack or stroke based on age, the presence of DM, CKD, or calculation of atherosclerotic risk. Although initial treatment may include thiazide diuretics (e.g., hydrochlorothiazide), calcium channel blockers (e.g., amlodipine), an ACE inhibitor (e.g., lisinopril) or an angiotensin receptor blocker (e.g., losartan), for most older adults, choosing appropriate therapy requires consideration of comorbid conditions (e.g., HF, CKD). Specific suggestions for treatment based upon various comorbidities are available within the 2017 ACC/AHA HTN guideline.

The 2017 ACC/AHA Hypertension Guideline is available for free at: <http://www.acc.org/guidelines/hubs/high-blood-pressure>



# ISMP Announces Top Safety Issues from 2017

- by Allen Lefkovitz

The Institute for Safe Medication Practices (ISMP) recently announced the “biggest medication safety issues” identified in 2017. Utilizing error reporting from January 2017 to September 2017, ISMP identified that 40% of all medication error events were attributed to the following 6 drug classes:

- Opioids (10%) ★**
- Antimicrobials (10%)**
- Antihypertensives (6%)**
- Antithrombotics (6%) ★**
- Anticonvulsants (4%)**
- Insulin/Other Antidiabetics (4%) ★**

★=High risk/High alert medication

Specific areas of focus mentioned by ISMP included:

- Improper dosing
- Failure to assess comorbidities
- Confusing drug names (e.g., Look-alike/Sound-alike)
- Inadequate patient monitoring

As skilled nursing facilities seek to establish and/or enhance their Quality Assurance Performance Improvement (QAPI) programs, an awareness of “high-risk, high-volume, or problem-prone areas” such as these identified by ISMP are important.

Solutions to each area can be addressed by consistently reporting medication errors, implementing regular audits and facility-wide standards of practice. For example, implementing some of the following standards of practice for minimizing opioid-related medication errors can increase safety and decrease errors:

- Conducting an assessment for each new long-acting (LA) opioid
- Questioning/clarifying all LA opioid orders for opioid-intolerant patients or when used for acute pain
- Implementing a restriction policy for LA opioids
- Limiting the types and strengths of opioids available in emergency drug supplies
- Using Tall Man lettering
- Differentiating between high potency, LA, and short-acting opioids
- Enhancing practitioner and patient education



## NEW Generic Medications

Generic Name	Brand Name	Date Generic Available
<b>Sildenafil Citrate 25 mg, 50 mg, and 100 mg Tablets</b>	Viagra® Tablet	12/11/17
<b>Timolol Maleate 0.5% Ophthalmic Solution</b>	Istalol® Ophthalmic Solution	11/27/17



## Lonhala™ Magnair™ Inhalation Solution

- by Allen Lefkovitz

<b>Brand Name (Generic Name)</b>	<b>Lonhala Magnair [ Ion-HAH-luh MAGG-nair] (Glycopyrrolate) [ Glys-koe-PIE-roe-late]</b>
<b>How Supplied</b>	Unit-dose 1 mL vials for nebulization in foil pouch
<b>Therapeutic Class</b>	Long-acting muscarinic antagonist
<b>Approved Indication</b>	Long-term maintenance of chronic obstructive pulmonary disease (COPD)
<b>Usual Dosing</b>	Administer 1 vial via the MAGNAIR device twice daily (in the morning and evening at the same time each day)
<b>Select Drug Interactions</b>	Avoid use with other anticholinergic medications due to additive effects
<b>Most Common Side Effects</b>	Shortness of breath, urinary tract infection
<b>Miscellaneous</b>	Store in foil pouch. Discard unused vials within 7 days after opening.
<b>Website</b>	<a href="https://www.lonhalamagnair.com/">https://www.lonhalamagnair.com/</a>

## Ozempic® (semaglutide) Injection

- by Dave Pregizer

<b>Brand Name (Generic Name)</b>	<b>Ozempic [oh-ZEM-pick] (semaglutide) [sem a GLOO tide]</b>
<b>How Supplied</b>	2 mg/1.5 mL (1.34 mg/mL) semaglutide available in single-patient-use pen delivering 0.25 mg or 0.5 mg per injection and a single-patient-use pen delivering 1 mg per injection
<b>Therapeutic Class</b>	Glucagon-like peptide 1 (GLP-1) receptor agonist
<b>Approved Indication</b>	Adjunct to diet and exercise to improve glycemic control in adults with type 2 diabetes
<b>Usual Dosing</b>	Start: 0.25 mg SQ once weekly at any time of day, without regard to meals. After 4 weeks, increase to 0.5 mg once weekly. If additional glycemic control is needed after at least 4 weeks, increase to 1 mg once weekly. Inject SQ in the abdomen, thigh, or upper arm.
<b>Select Drug Interactions</b>	May impact absorption of concomitantly administered oral medications due to delayed gastric emptying; increased risk of hypoglycemia with combined use of insulin or sulfonylureas.
<b>Most Common Side Effects</b>	Nausea, vomiting, diarrhea, abdominal pain, and constipation
<b>Miscellaneous</b>	Boxed Warning for potential risk of thyroid C–cell tumors.
<b>Website</b>	<a href="http://www.ozempicpro.com">www.ozempicpro.com</a>

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