Catholic Health

PHARMACY & THERAPEUTICS NEWSLETTER

October 2026, Issue 17

LACTULOSE DOSING

Lactulose dosing in epic will be limited to 20 gm increments.

The standard dose is 20 gm daily for constipation (up to 40 gm).

For hepatic encephalopathy – 20 gm three to four times per day.



Prepared by Richard Geisler (Clinical Pharmacy Manager) and Sarah Buranich (Clinical Pharmacy Specialist)

SODIUM POLYSTYRENE SULFONATE – SPS (KAYEXALATE®) REMOVAL FROM FORMULARY

This agent has extremely limited clinical literature with only two small trials. The original FDA approval trial (1961) was a study of 32 patients showing SPS lowered serum potassium by ~0.9 mEq/L at 24 hours.

It is contraindicated in individuals with intestinal obstruction or obstructive bowel disease. It is to be avoided in individuals who are at risk for developing constipation or fecal impaction, including those with history of impaction, chronic constipation, inflammatory bowel disease, ischemic bowel disease, vascular intestinal atherosclerosis, previous bowel resection, or bowel obstruction. Intestinal necrosis, some fatal, and other serious GI adverse events such as bleeding, ischemic colitis, and perforation, have been reported in association with its use.

Sodium zirconium cyclosilicate (Lokelma®), which had been our preferred formulary potassium binding agent, has a much more robust trial data than sodium polystyrene sulfonate, with multiple large, double-blind, placebo-controlled phase II/III trials supporting both acute correction and chronic indications.

Effective November 2nd, sodium polystyrene sulfonate will no longer be available at Catholic Health. Sodium zirconium cyclosilicate is the preferred potassium binding agent.

CONCERNS ABOUT TOLVAPTAN USE

A drug utilization review was conducted following a case concerning over correction of sodium, as requested by the Dept of Medicine. Pharmacy looked at 10 patients who received therapy over the spring-summer of this year. Two of these cases also showed overcorrection – 119 to 131 & 119 to 134, within approximately 24 hours. A few issues were identified. The initial dose chosen was most often 15mg (only once was 7.5mg selected). Evidence supports that 7.5 mg is a reasonable initial dose over the FDA-licensed 15 mg starting dose.

Why choose 7.5 mg:

- **Comparable efficacy at lower risk.** A 2025 systematic review/meta-analysis (18 studies, 495 patients) found that initial doses <15 mg raised serum sodium by 7.2 mmol/L within 24 hours, and the 7.5 mg subgroup (n=286) achieved a 7.8 mmol/L rise — essentially equivalent to the standard dose. The authors recommend initiating at 7.5 mg, or even at 3.75 mg in highest risk patients.

- **Emergency department comparison** (Castello 2017)**:** the 15 mg dose produced dangerous overcorrection (>12 mEq/L/24 h) in **41.7%** of patients, versus **0%** with 7.5 mg (P = 0.037), with a median correction of 12 vs 6 mEq/L/24 h.

- **Overcorrection is a concern.** In that meta-analysis, even at low doses, overcorrection (≥10 mmol/L/24 h) occurred in 31% and ≥12 mmol/L in 10%. The JAMA hyponatremia review similarly concludes that 7.5 mg/d is effective and safe.

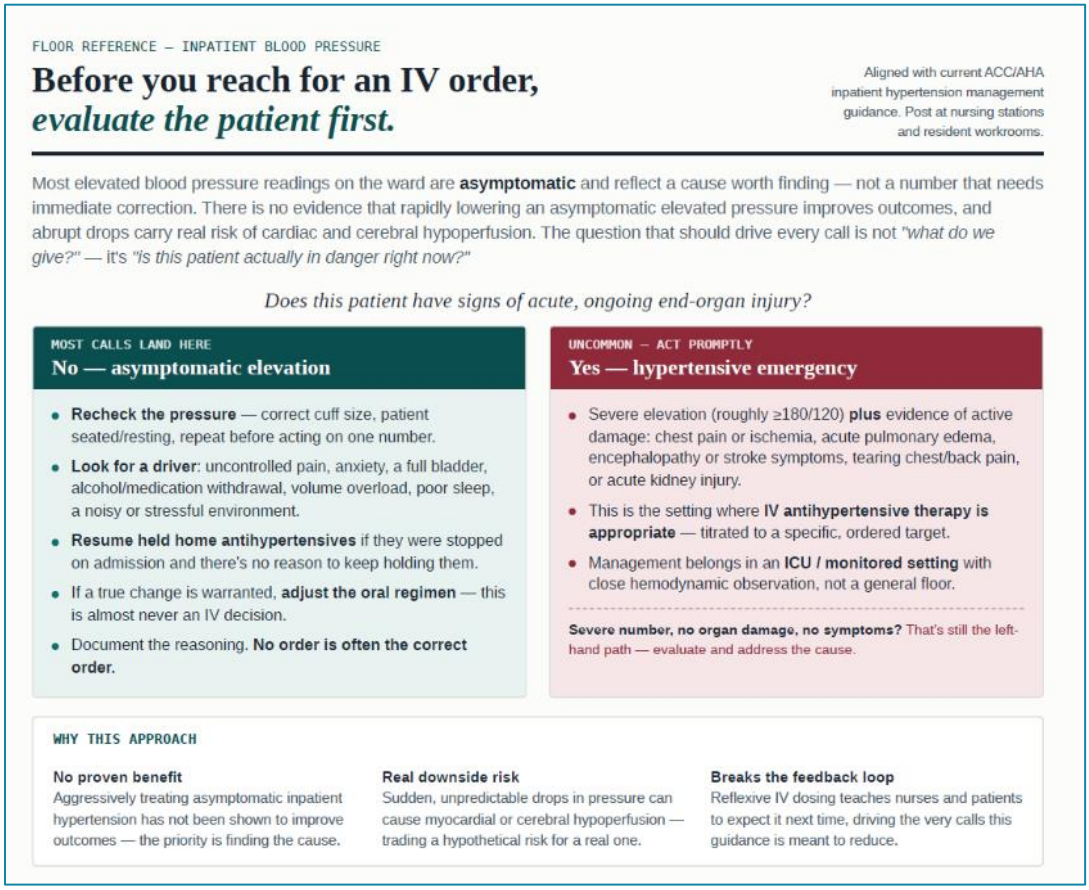
Monitoring serum sodium:

In four out of the ten cases reviewed, the sodium was monitored less often than q8h. Regardless of which starting dose is chosen, the key safeguard for the use of this medication is frequent serial sodium monitoring. Serum sodium needs to be checked at q6–8h intervals, at least for the first 24 hours. Ensuring that fluid restriction isn't in place and expeditiously reviewing completed lab work needs to occur. A quick response is also necessary to re-lower sodium with D5W ± desmopressin if the correction exceeds the daily limit.

References:
[1]Efficacy and Safety of Two Different Tolvaptan Doses in the Treatment of Hyponatremia in the Emergency Department. *Internal and Emergency Medicine*. 2017. Castello LM, Baldrighi M, Panizza A, Bartoli E, Avanzi GC.
[2]Low-Dose Tolvaptan for the Treatment of Syndrome of Inappropriate Antidiuretic Hormone-Associated Hyponatremia: A Systematic Review, Meta-Analysis, and Meta-Regression Analysis of Clinical Effectiveness and Safety. *Endocrine Practice: Official Journal of the American College of Endocrinology and the American Association of Clinical Endocrinologists*. 2025. Lewellyn D, Nuamek T, Ostarijas E, et al.
[3]Diagnosis and Management of Hyponatremia: A Review. *The Journal of the American Medical Association*. 2022. Adrogué HJ, Tucker BM, Madias NE.

IV HYDRALAZINE AND UNNECESSARY TREATMENT OF ISOLATED HYPERTENSION

As we continue our initiative to follow evidenced-based treatment guidelines. Here is a snippet of a document that was recently disseminated on this issue:



FLOOR REFERENCE — INPATIENT BLOOD PRESSURE

Before you reach for an IV order, *evaluate the patient first.*

Aligned with current ACC/AHA inpatient hypertension management guidance. Post at nursing stations and resident workrooms.

Most elevated blood pressure readings on the ward are **asymptomatic** and reflect a cause worth finding — not a number that needs immediate correction. There is no evidence that rapidly lowering an asymptomatic elevated pressure improves outcomes, and abrupt drops carry real risk of cardiac and cerebral hypoperfusion. The question that should drive every call is not *"what do we give?"* — it's *"is this patient actually in danger right now?"*

Does this patient have signs of acute, ongoing end-organ injury?

MOST CALLS LAND HERE

No — asymptomatic elevation

- **Recheck the pressure** — correct cuff size, patient seated/resting, repeat before acting on one number.
- **Look for a driver**: uncontrolled pain, anxiety, a full bladder, alcohol/medication withdrawal, volume overload, poor sleep, a noisy or stressful environment.
- **Resume held home antihypertensives** if they were stopped on admission and there's no reason to keep holding them.
- If a true change is warranted, **adjust the oral regimen** — this is almost never an IV decision.
- Document the reasoning. **No order is often the correct order.**

UNCOMMON — ACT PROMPTLY

Yes — hypertensive emergency

- Severe elevation (roughly ≥180/120) **plus** evidence of active damage: chest pain or ischemia, acute pulmonary edema, encephalopathy or stroke symptoms, tearing chest/back pain, or acute kidney injury.
- This is the setting where **IV antihypertensive therapy is appropriate** — titrated to a specific, ordered target.
- Management belongs in an **ICU / monitored setting** with close hemodynamic observation, not a general floor.

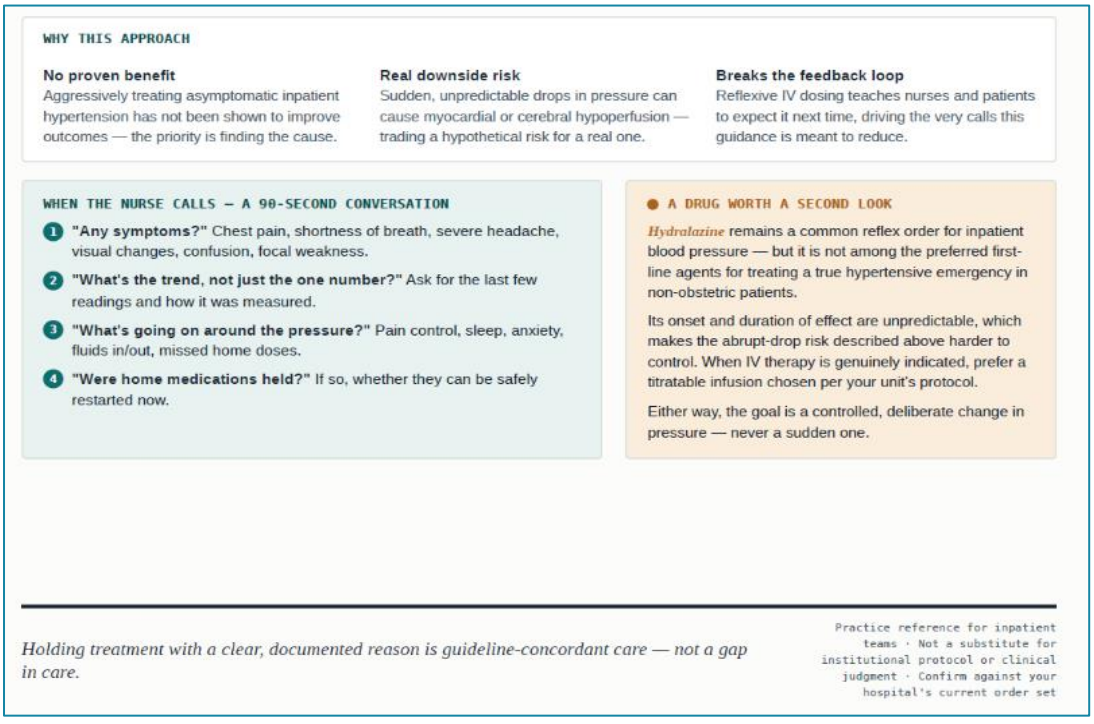
Severe number, no organ damage, no symptoms? That's still the left-hand path — evaluate and address the cause.

WHY THIS APPROACH

No proven benefit
Aggressively treating asymptomatic inpatient hypertension has not been shown to improve outcomes — the priority is finding the cause.

Real downside risk
Sudden, unpredictable drops in pressure can cause myocardial or cerebral hypoperfusion — trading a hypothetical risk for a real one.

Breaks the feedback loop
Reflexive IV dosing teaches nurses and patients to expect it next time, driving the very calls this guidance is meant to reduce.



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WHEN THE NURSE CALLS — A 90-SECOND CONVERSATION

1. **"Any symptoms?"** Chest pain, shortness of breath, severe headache, visual changes, confusion, focal weakness.
2. **"What's the trend, not just the one number?"** Ask for the last few readings and how it was measured.
3. **"What's going on around the pressure?"** Pain control, sleep, anxiety, fluids in/out, missed home doses.
4. **"Were home medications held?"** If so, whether they can be safely restarted now.

A DRUG WORTH A SECOND LOOK

Hydralazine remains a common reflex order for inpatient blood pressure — but it is not among the preferred first-line agents for treating a true hypertensive emergency in non-obstetric patients.

Its onset and duration of effect are unpredictable, which makes the abrupt-drop risk described above harder to control. When IV therapy is genuinely indicated, prefer a titratable infusion chosen per your unit's protocol.

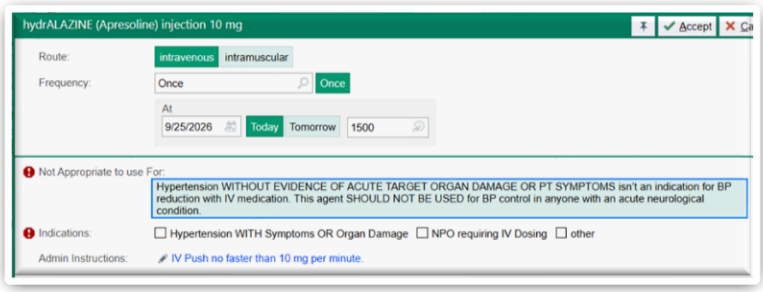
Either way, the goal is a controlled, deliberate change in pressure — never a sudden one.

Holding treatment with a clear, documented reason is guideline-concordant care — not a gap in care.

Practice reference for inpatient teams · Not a substitute for institutional protocol or clinical judgment · Confirm against your hospital's current order set

Continued on next page

In conjunction with this, the IV hydralazine order will be changing to:



Note the warning statement that you must validate. An indication question has been added. The frequency option "once" – no q4h prn or such. If you do have to order a patient IV hydralazine on a scheduled (q6h) basis because of NPO status, the magnifying glass can access other frequencies.

CHS PHARMACY RESIDENCY DATES TO REMEMBER

Journal Club	10/16/2026 – Michelle Jabbour 11/20/2026 – Joyce Roufaeil 01/15/2027 – Erin Austin
Grand Rounds	10/22/2026 – Joyce Roufaeil (Inpatient PAH Management) 11/19/2026 – Ireland Sample (Perioperative Management of Anticoagulation) 01/21/2027 – Kara Mendola
WNYSHP Midday CE Presentations	10/13/2026 – Erin Austin (Restoring the Balance: The Emerging Role of Microbiota-Based Therapies in Recurrent CDI) 11/04/2026 – Michelle Jabbour + Nusrat Samiya 01/06/2027 – Ireland Sample



On Wednesdays, our residents wear pink