



Endeavor
HealthSM

ED Pharmacist's Notes

June 2024

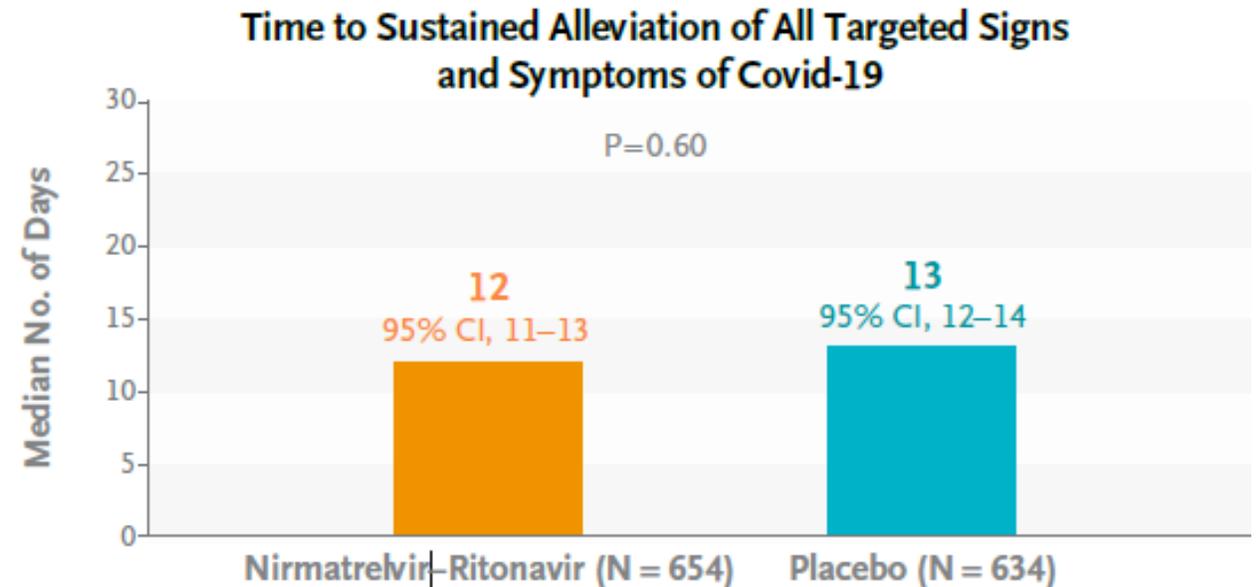
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Paxlovid – Oral Antiviral for COVID-19

- EPIC-**HR** Trial: Paxlovid vs. Placebo in Nonhospitalized **High Risk** Adults With COVID-19
 - As compared with placebo, Paxlovid reduced the risk of hospitalization or death in symptomatic, **UNvaccinated**, nonhospitalized, high risk patients
 - N Engl J Med **2022**;386:1397-140

Paxlovid

- EPIC-**SR** Trial: Paxlovid vs. Placebo in **Standard-Risk** (vaccinated or unvaccinated) or high risk patients (vaccinated)
 - No significant difference in the time to symptom alleviation between groups
 - No statistically significant difference in hospitalization or death between groups
 - Slight improved outcomes for Very high risk pt who received Paxlovid
 - N Engl J Med **2024**;390:1186-1195



COVID-19 SW & NSL Inpatient Guideline - Antivirals

- Consider antivirals if pt has Sx and **high risk*** for severe disease
 - High risk*: eg., transplant, malignancy on chemo tx, immunosuppressive tx. Advanced HIV, pregnancy (if unvaccinated)
- Mild to moderate, no supplemental oxygen
 - Paxlovid 5 days (1st line)
 - Remdesivir 3 days if Paxlovid is contraindicated
- Severe disease and on oxygen
 - May consider remdesivir 5 days
- Costs: Paxlovid 5 days ~\$1,300, Remdesivir 5 days ~\$3,600
- Guideline available on intranet

CHEMPACK

- CHEMPACKs are containers of **nerve agent antidotes** placed in secure locations in local jurisdictions around the country
- Allows rapid response to a chemical incident
- It is nationwide program (managed by ASPR)
- Created after September 11 attacks
- <https://chemm.hhs.gov/chempack.htm#containers>



CHEMPACK – EMS vs. Storing Hospital

EMS CHEMPACK CONTAINER

- Geared to on-site response
- Supplies to treat 454 cases
- Mostly autoinjectors
- Stored at Fire Departments
- 8 total in Chicago

Hospital CHEMPACK CONTAINER

- Geared to clinical care environment
- Supplies to treat 1000 cases
- Mostly vials
- Stored in hospitals
- 15 Chicago hospitals: Storing
- 14 Chicago hospitals: Non-storing

CHEMPACK – 4 Drugs in Hospital Container

Drug	Quantity of master case	Units (vials or autoinjectors)	Total units
Atropen (atropine autoinjector) 0.5 mg	1	144 injectors per case	144
Atropen (atropine autoinjector) 1 mg	1	144 injectors per case	144
Atropine sulfate 0.4 mg/mL – 20 mL MDV	11	100 vials per case	110
Diazepam 5 mg/mL vial – 10 mL MDV	3	50 units per case	150
Diazepam 10 mg autoinjector	1	15 injectors per box (10 boxes per case)	150
Pralidoxime 1 g powder vial – 20 mL (once reconstituted with sterile water).	12	276 vials per case	3312
Midazolam (Seizalam) 5 mg/mL – 10 mL MDV	10	50 vials per case	500

CHEMPACK – Exposure of Nerve agents/Organophosphate

- Chemicals: eg., Sarin, Soman, organophosphate pesticides
 - Potent inhibitors of acetylcholinesterase
- Exposure: inhalation, ingestion, skin
- Cholinergic toxidrome
 - **SLUDGE**: S (salivation/seizure), L (lacrimation), U (urination), D (diaphoresis/diarrhea), G (GI distress), E (emesis)
 - **DUMBELLS**: D (diaphoresis/diarrhea), U (urination), M (miosis), B (bronchospasm/bronchoconstriction/bronchorrhea), E (emesis), L (lacrimation), S (salivation/seizure)

CHEMPACK - Activation

- **ED provider** suspects nerve agent/ OP exposure and decides to activate CHEMPACK → Contact **Inpatient Pharmacy** to access CHEMPACK → Alarm sent to **ASPR**
- **ED provider** may opt to call **IL poison center (IPC)** for a consult → IPC contacts **Inpatient pharmacy** to access CHEMPACK → see above
- Pharmacy has keys to CHEMPACK room and container
- Pharmacy (with Security staff) delivers drugs to ED
- CHEMPACK assets (1/3 or 2/3) may be requested by IPC and deployed from the CHEMPACK cache site to non-storing hospital



CHEMPACK – Treatments for Cholinergic Toxicity

- Atropine: anticholinergic agent
 - IV/IM, 2 - 5 mg, repeat by doubling the dose every 3 - 5 minutes if previous dose did not induce a response
- Pralidoxime (2- PAM): reactivator of acetylcholinesterase
 - IV: 1 - 2 g in 100 mL over 30 min, may repeat after 1 - 2 hr
 - IM: 600-1800 mg, may repeat dose
- Diazepam/ Midazolam: benzodiazepine
 - IV/ IM, for seizure

Thank You!