Generations+/Northern Manhattan

Harlem Pharmacy Newsletter

Septmeber 2011

Addition of Curosurf ® to the Harlem Drug Formulary

CUROSURF® (poractant alfa), an intratracheal suspension, has been added to the Harlem Hospital Formulary as of August 2011. It is used to treat premature infants with respiratory distress syndrome (RDS). Patients with this condition are often infants with underdeveloped lungs such that they do not produce enough surfactant, a liquid which helps air sacs in the lung remain inflated. CUROSURF is a surfactant which reduces tension in the lungs so that the air sacs can expand and gases such as oxygen can be transported into the body system. CUROSURF is for intratracheal use (instillation into the windpipe) only.

Recommended Dose

The initial recommended dose of CUROSURF is 2.5 mL/kg. Patients can have up to two repeated doses of 1.25 mL/kg after the initial dose. These repeat doses should be administered, at 12-hour intervals, in infants who remain intubated and in whom RDS is considered responsible for their persisting or deteriorating respiratory status. The maximum recommended total dose (sum of the initial and up to two repeat doses) is 5 mL/kg.

CUROSURF has more medication in less volume as compared to other surfactants. It spreads fast and evenly throughout the lungs. This reduces complications such as airway obstruction and endotracheal tube blockage. Studies have shown that CUROSURF weans infants from supplemental oxygen quicker in the first 6 hours after administration and a significantly less amount of infants required repeated doses

Directions for use

CUROSURF is a creamy white suspension. Before use, it should be inspected for discoloration. CUROSURF should be warmed to room temperature and gently turned upside down to assure uniform distribution. Do not shake.

Storage

CUROSURF should be stored in the refrigerator at 2-8°C (36-46°F). Unopened vials can be stored at room temperature for 24 hours before administration. Do not warm to room temperature and refrigerate more than once.

Warnings

CUROSURF can rapidly affect oxygen levels in the body and lung compliance. Infants should be monitored with clinical and laboratory assessments.
If adverse reactions such as low blood pressure, slower heart rate and oxygen desaturation are seen, the medication should be discontinued immediately.

CUROSURF demonstrates a rapid onset of action, sustained results with fewer doses, and facilitates success with less invasive ventilation for fast RDS success. For more information visit: http://www.curosurf.com

Look A-like Sound A-like Medications

Curosurf ® (poractant alfa) is an Intratracheal Suspension available in a sterile, ready-to-use rubber-stoppered clear glass vials containing 1.5ml [120mg surfactant (extract)] or 3.0 ml [240mg surfactant (extract)] of suspension.

These vials are Look-Alike Sound Alike. They are basically identical and the only difference is the vial is the cap, one is green and the other is blue.

To prevent LASA errors institutions may want to select only one vial size instead of having both in order to eliminate issues with selecting the wrong vial.

TO PREVENT LOOK ALIKE, SOUND ALIKE MEDICATION ERRORS:

- *Separate locations of look alike medications·*
- *Use look alike sound alike (LASA) auxiliary stickers on bins containing the medication*
- *Train staff to recognize LASA errors*
- *For handwritten/oral prescriptions, do not make assumptions; call the prescriber to confirm medication.*
- *Medication Reconciliation: Check patient's profile & review medication list to prevent errors*

TPN SERVICES

AVAILABLE 7 DAYS A WEEK

Recently, the Pharmacy Department announced that it will be providing Total Parenteral Nutrition ***(TPN) Services seven (7) days a week.*** This means that a new order for TPN can be placed daily including the weekends, provided that the prescriber sends the TPN form to pharmacy by 11-11:30am that day.

TPN provides patients who are unable to eat with nutrition such as protein, sugar, vitamins, minerals, and sometimes fat (lipids). TPN always goes into your vein (blood vessel) through an intravenous (IV) line. The most common reason to use TPN is because the gastrointestinal tract (GI) tract is not functional. In the case of a premature infant, this may be because it's not fully formed yet. For adults, it can also be the result of complications of disease or severe trauma (e.g. cancer patients, burn victims, and AIDS patients)

Safety and Stability of Lipid Emulsions

Intralipid® is a fat emulsion used as a component of parenteral nutrition for patients who are unable to get nutrition via an oral diet. It is an emulsion of soy bean oil, egg phospholipids and glycerin. It is available in a 20% concentration from the Pharmacy. Intralipid provides essential fatty acids, linoleic acid (LA), an omega-6 fatty acid, alpha-linolenic acid (ALA), an omega-3 fatty acid.

To ensure integrity of Intralipid® manufacturer's states *"the integrity indicator (Oxalert™) (see picture below) should be inspected before removing the overpouch. If the indicator is black, the overpouch is damaged and the product should be discarded"*

Oxalert™ integrity indicator is clear product is okay to use

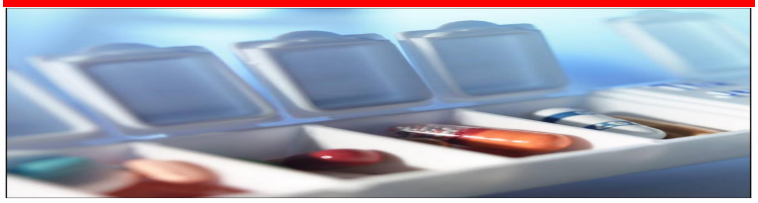
Oxalert™ integrity indicator is black discard product

Editor: *Hinnah Farooqi Pharm.D*

Peer-reviewed: Dr. Haider Syed R.Ph., Umer Farooq Pharm.D, Advised By: S. Khan R.Ph

If you wish to contribute an article or commentary for Pharmacy Newsletter, contact H.Farooqi, Pharm.D. at hinnah.farooqi@nychhc.org no later than 15th of the month for the next issue.

FDA: Medication Safety



The FDA has received reports of **serious central nervous system (CNS)** reactions when the drug **methylene blue** is given to patients taking psychiatric medications that work through the serotonin system of the brain (serotonergic psychiatric medications*). Drug labels for serotonergic psychiatric medications will be update to include this warning.

Methylene blue is used to treat methemoglobinemia, vasoplegic syndrome, ifosfamide-induced encephalopathy, and cyanide poisoning. It is also used as a dye in therapeutic and diagnostic applications. Methylene blue is a potent, reversible monoamine oxidase inhibitor (MAOI). Although the exact mechanism of this drug interaction is unknown, methylene blue inhibits the action of monoamine oxidase A — an enzyme responsible for breaking down serotonin in the brain**.

It is believed that when methylene blue is given to patients taking serotonergic psychiatric medications, high levels of serotonin can build up in the brain, causing toxicity. This is referred to ***as Serotonin Syndrome*** — signs and symptoms include mental changes (confusion, hyperactivity, memory problems), muscle twitching, excessive sweating, shivering or shaking, diarrhea, trouble with coordination and/or fever.

The FDA states in such emergency situations, alternative interventions should be considered and the benefit of methylene blue treatment should be weighed against the risk of toxicity.

If methylene blue must be administered to a patient receiving a serotonergic drug, the serotonergic drug must be immediately stopped and the patient should be closely monitored for symptoms of toxicity for two weeks or until 24 hours after the patient's final dose of the MAOI, whichever comes first.

In non-urgent situations for patients taking serotonergic psychiatric medications before starting Methylene Blue:

•The serotonergic psychiatric medication should be stopped at least two weeks in advance, and at least five weeks in advance, to allow the antidepressant's activity in the brain to dissipate;

•Treatment with the serotonergic psychiatric medication may be resumed 24 hours after the last dose of the MAOI;

•Educate patients to recognize the symptoms of toxicity and advise them to contact a health care professional immediately if they experience any such symptoms while taking serotonergic psychiatric medications and methylene blue**.

Tables -Psychiatric medications with serotonergic activity*

Selective Serotonin Reuptake Inhibitors Generic name	**Found in Brand name(s)**	**Serotonin-Norepinephrine Reuptake Inhibitors** Generic name	**Found in Brand name(s)**
paroxetine	Paxil, Paxil CR	venlafaxine	Effexor, Effexor XR
fluvoxamine	Luvox, Luvox CR	duloxetine	Cymbalta
fluoxetine	Prozac, Sarafem, Symbyax		
sertraline	Zoloft		
citalopram	Celexa		
escitalopram	Lexapro		

*For a complete list of serotonergic psychiatric medications and more infor,, visit the following FDA website http://www.fda.gov/Drugs/DrugSafety/ucm263190.htm#table

**http://www.fda.gov/Safety/MedWatch/SafetyInformation/SafetyAlertsforHumanMedicalProducts/ucm265476.htm