



Implementing a Safety Protocol for Rituximab Administration in Pediatric Patients with Encephalitis

Authors:

Rebecca Stubblefield BSN, RN

Laura Soto BSN, RN, CPN

Ruby Annette De Jesus BSN, RN, CPN



**Texas Children's
Hospital®**

Background

- Rituximab is a chemotherapeutic drug used to treat other medical diagnoses
- Recently used for Anti-N-Methyl-D Aspartate (NMDA) Encephalitis unresponsive to conventional therapy
- Due to its novelty to the neurology unit, safe administration of Rituximab was a quality concern



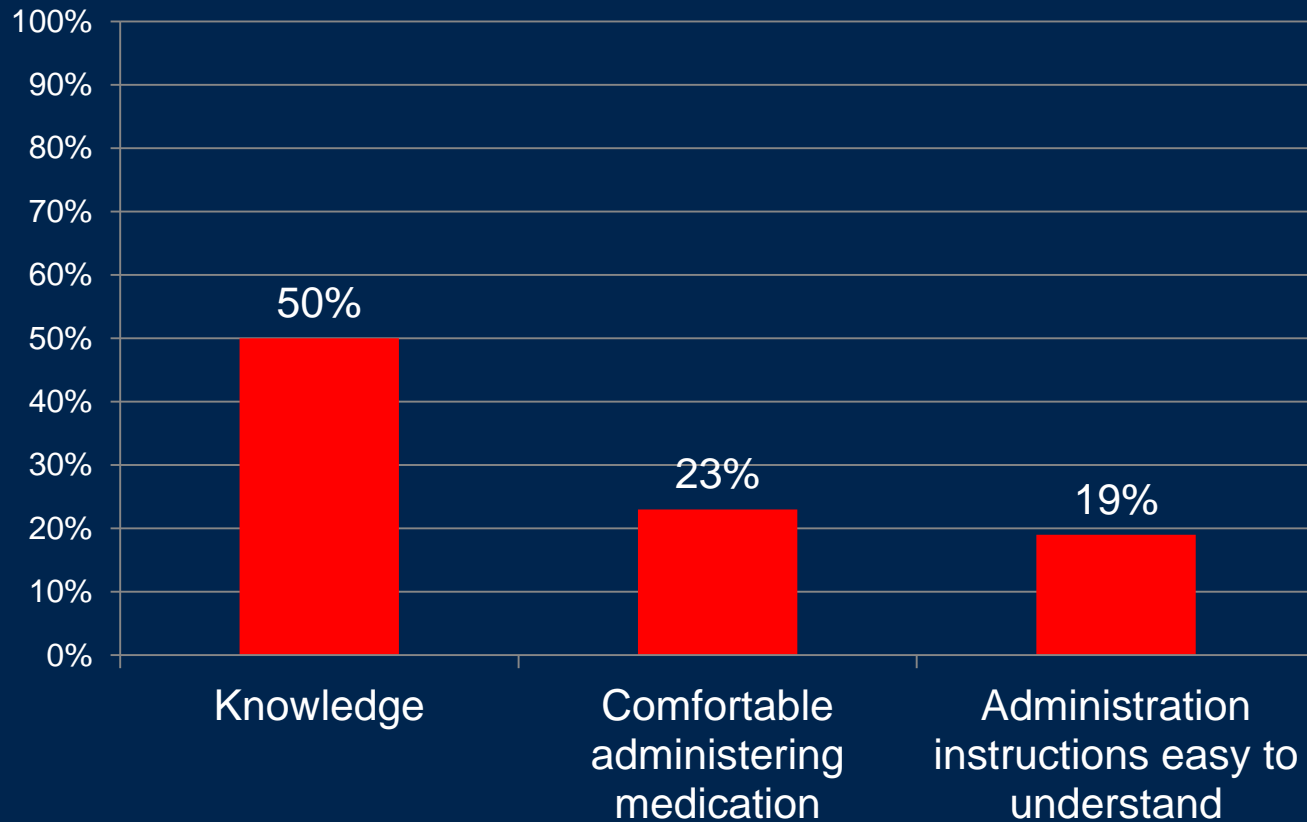
Purpose

- Develop a protocol of ensuring safe administration of Rituximab (Rituxan) in pediatric patients with encephalitis

Methodology

- Staff were surveyed to determine their knowledge and comfort level with administration
- Rituximab administration instructions were evaluated for clarity

Staff Pre-Survey Results



Implementation Plan

- New medication protocol developed by pharmacy
- Standardized order entry for physicians
- Unit pharmacist provided education on Rituximab infusion protocol to unit nursing staff

Standardized Order Set

RX RITUXIMAB (RITUXAN) NON-ONCOLOGIC USE [947]

Nursing

Nursing [Rituximab]

<input checked="" type="checkbox"/> Have the following at bedside: gloves, normal saline flush, 1ml and 3ml syringes w/ needles	Routine, UNTIL SPECIFIED, Starting today
<input checked="" type="checkbox"/> Pulse Oximetry monitoring throughout riTUXimab infusion	Routine, UNTIL SPECIFIED, Starting today
<input checked="" type="checkbox"/> Vital Signs - (T,P,RR,BP, and O2 saturation) at baseline, prior to and 15 minutes after EACH change in the riTUXimab infusion rate, and at the end of the riTUXimab infusion	Routine, UNTIL SPECIFIED, Starting today
<input checked="" type="checkbox"/> If hypotension occurs, STOP riTUXimab INFUSION. Start IV NS at 100 mL/m2/hr.	Routine, UNTIL SPECIFIED, Starting today

Notify Practitioner [Rituximab]

<input checked="" type="checkbox"/> Notify PNP/MD immediately of fever, chills/rigors, headache, respiratory changes, symptoms of mucosal congestion or edema, hypotension (parameters specified below), dizziness, or rash.	Routine, UNTIL SPECIFIED, Starting today
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Standardized Order Set

Per Protocol

<input checked="" type="checkbox"/> Procedural Pain Medication Per Protocol	Routine, ONE TIME
<input checked="" type="checkbox"/> Flush Per Protocol	Routine, UNTIL SPECIFIED, Starting today

IV Fluids [Rituximab]

<input checked="" type="checkbox"/> sodium CHLORide 0.9% (NS) Continuous Infusion	Intravenous, at 10 mL/hr, CONTINUOUS With stopcock and tubing. Increase rate to 100 ml/m2/hour if hypotension occurs during rITUXimab infusion
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Anaphylactic Precautions (Kit to Bedside) [Rituximab]

Maximum Doses:

Diphenhydramine Injection = 50 mg

Hydrocortisone Injection = 250 mg

Epinephrine 1:10,000 Injection = 0.1 mg (= 1 mL)

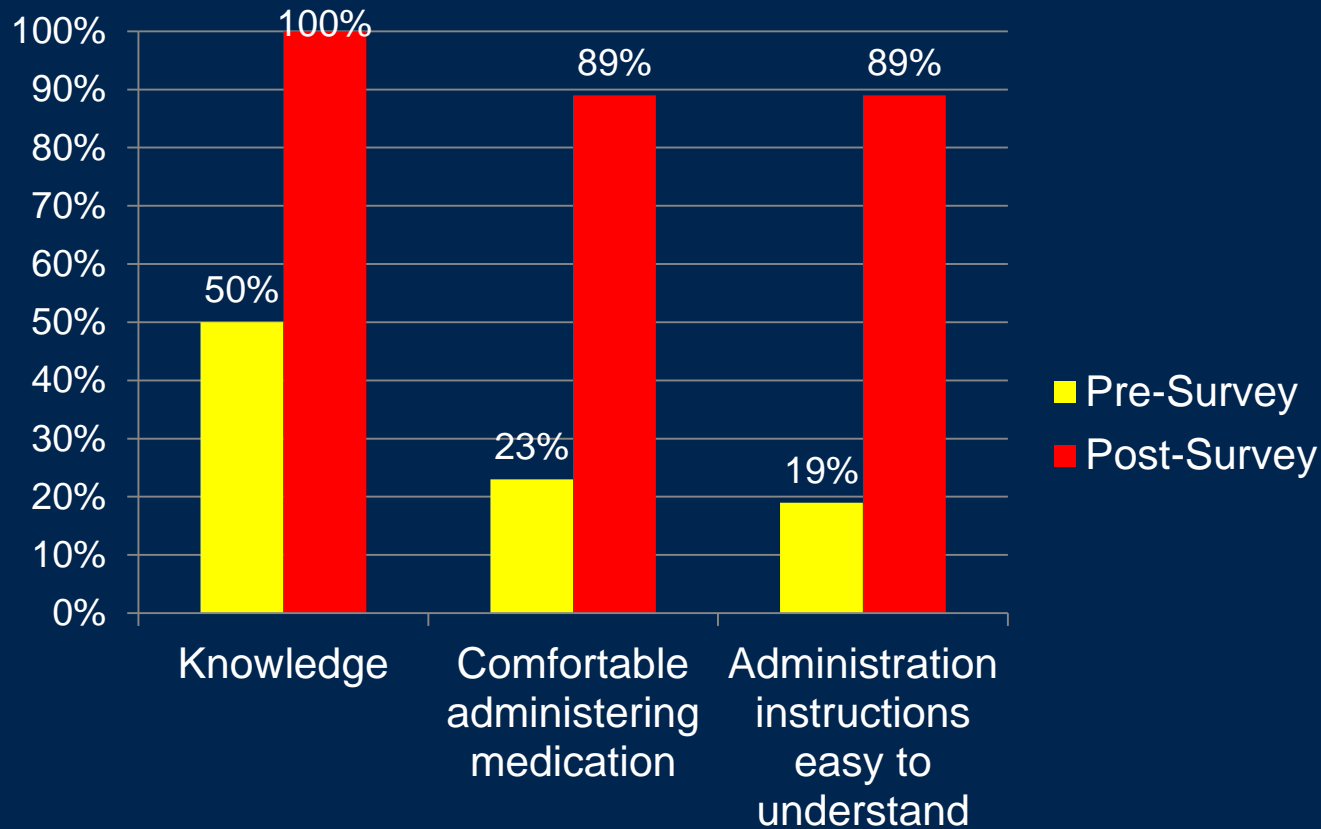
<input checked="" type="checkbox"/> diphenHYdramine (BENADRYL) Injection	1 mg/kg Intravenous, for 15 Minutes, ONCE PRN For 1 Doses, anaphylaxis Give IV push. Keep medication at the bedside.
<input checked="" type="checkbox"/> hydrocortisone sodium succinate Injection	2 mg/kg Intravenous, ONCE PRN For 1 Doses, anaphylaxis Give IV Push. Keep medication at the bedside.
<input checked="" type="checkbox"/> EPInephrine (ADRENALIN) Injection 0.1 mg/mL (1:10,000) Syringe	0.01 mg/kg, Intravenous, ONCE PRN For 1 Doses, anaphylaxis Give IV Push. Keep medication at the bedside.

Standardized Order Set

Premedications [Rituximab]

<input checked="" type="checkbox"/> diphenHYdramine (BENADRYL) Injection for one dose, 30 minutes before start of riTUXimab infusion	1 mg/kg Intravenous, for 15 Minutes, ONCE Starting today For 1 Doses Give IV Push 30 minutes before start of riTUXimab infusion (premedication).
<input checked="" type="checkbox"/> Acetaminophen Per Protocol for one dose, 30 minutes before start of riTUXimab infusion	Routine, ONE TIME For 1 Occurrences Nursing - Please enter orderset (67) RX ACETAMINOPHEN PER PROTOCOL **Premedication to be given 30 minutes before start of riTUXimab infusion (x 1 Per Protocol oral dose of acetaminophen)

Staff Survey Results



Clinical Implications

- This interdisciplinary clinical initiative is a key example of how nursing can lead change and ensure safe quality patient care

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THANK
YOU