

## March 2013 Pulmonary Journal Club

**Reignier J, Mercier E, Le Gouge A, Boulain T, Desachy A, Bellec F, Clavel M, Frat JP, Plantefeve G, Quenot JP, Lascarrou JB; Clinical Research in Intensive Care and Sepsis (CRICS) Group. Effect of not monitoring residual gastric volume on risk of ventilator-associated pneumonia in adults receiving mechanical ventilation and early enteral feeding: a randomized controlled trial. JAMA. 2013;309(3):249-56.**

The March pulmonary journal club reviewed the article looking at the effect of gastric residual volume and ventilator associated pneumonia. Most of us would agree that enteral nutrition in the critically ill patient is important but how early and how much is still debatable. In many institutions gastric residual volumes are used to assess gastric motility and help guide rate and cessation of enteral nutrition. This study evaluated the effect of not monitoring gastric residual volume and its effect on ventilator associated pneumonia.

The study was a randomized multicenter non- inferiority trial done in France between 2010-2011. All patients older than 18 years of age and on mechanical ventilation > 48 hours were included. 452 patients were included in the study and randomized into 2 groups. The control group (222 patients) underwent monitoring of gastric residuals every 6 hours while the study group (230 patients) had no monitoring of gastric residuals. Gastric residual volumes of > 250ml and/or emesis resulted in alteration of enteral feeding rates in the control arm. The primary outcome was the incidence of ventilator associated pneumonia (VAP).

The results demonstrated higher incidences of emesis in the study arm verses the control arm, 40% vs. 27%. Despite this there were no significant differences in the incidence of VAP, 16.7% in study group vs. 15.8% in the control group. There were no differences in mortality or length of days on the ventilator. This study shows that scheduled monitoring of gastric residuals does not decrease incidence of VAP, and should not be instituted as standard practice.

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