COMPARATIVE EFFICACY AND SAFETY OF ENOXAPARIN AND FONDAPARINUX IN NON-HIGH RISK ACUTE PULMONARY EMBOLISM: AN ADJUSTED PROPENSITY SCORE ANALYSIS

**ACC Poster Contributions**
Ernest N. Morial Convention Center, Hall F
Monday, April 04, 2011, 9:30 a.m.-10:45 a.m.

**Session Title:** Venous Thrombosis/Pulmonary Embolism/Pulmonary Hypertension
**Abstract Category:** 12. Venous Thrombosis/Pulmonary Embolism/Pulmonary Hypertension
**Session-Poster Board Number:** 1078-133

**Authors:** Nicolas F. Meneveau, Vincent Descotes-Genon, Romain Chopard, Marie-France Seronde, Florent Briand, Alexandre Guignier, Yvette Bernard, François Schiele, University Hospital Jean Minjoz, Besancon, France

**Aim** ESC guidelines recommend low molecular weight heparin (LMWH) and fondaparinux (fonda) over unfractionated heparin (UFH) for initial treatment of acute pulmonary embolism (PE), except in patients (pts) at high bleeding risk or with severe renal dysfunction. No trial has assessed the comparative efficacy of enoxaparin (enox) and fonda in this setting.

**Methods** Prospective, multicenter registry of confirmed PE pts. Pts with proven recent PE (symptom onset <15 days) and treated with approved regimens of enox or fonda were included. Pts with high risk PE, and those with recent (<14 days) or active bleeding, surgery <3 days, stroke <10 days, or renal failure were excluded. To adjust for potential bias, we calculated a propensity score by logistic regression, corresponding to the predicted probability that patients were treated by enox as opposed to fonda. We used a combined in-hospital endpoint defined as death, recurrent PE, or major bleeding. Secondary endpoints were residual pulmonary vascular obstruction (RPVO) as assessed by perfusion lung scan at discharge and 6 months, and 6 month mortality.

**Results** Among 501 pts included from 2006-2010, 229(46%) received enox and 272(54%) received fonda. Baseline characteristics were similar between groups. Five(2.2%) enox pts had recurrent PE vs 5(1.8%) in the fonda group (p=0.96). Thirteen(5.7%) enox pts and 9 (3.3%) fonda pts had major bleeding (p=0.19); in-hospital mortality was 3.5% and 1.1% respectively (p=0.07). In-hospital, 19(8.3%) enox pts reached at least one clinical endpoint vs 12(4.4%) fonda pts (p=0.07).After adjusting on propensity score, there was no significant difference between groups in terms of death, recurrent PE, major bleeding or combined endpoint (enox vs fonda, OR=1.45 [0.67-3.14]). RPVO at discharge was 28.4±14.6% vs 27.2±13.9, enox vs fonda, p=0.57. There was no difference in RPVO at 6 months . Six-month mortality was 8.5% vs 9.3%, enox vs fonda, p=0.76.

**Conclusion** Our data suggest that enox and fonda can be used interchangeably, as they have comparable efficacy and safety profiles in non-high risk acute PE pts. Neither molecule appears to induce an excess bleeding risk as compared to the other, although this remains to be confirmed.