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Advancing Clinical Nutrition

## Media Release

**BAPEN Conference News**

13-14 October 2009

Cardiff International Arena 09-9

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**Exclusive news to the UK**

### RESULTS OF 'SIGNET' TRIAL REVEALED EXCLUSIVELY AT BAPEN CONFERENCE 2009

The SIGNET Trial – a randomised controlled trial of glutamine and/or selenium supplemented parenteral nutrition in critical illness

**10-15% decrease in infection rates reported with selenium supplemented parenteral nutrition if given for at least 5 days**

Dr Alison Avenell<sup>1</sup> on behalf of the SIGNET Trial Group, led by Professor Peter Andrews<sup>2</sup> presented the first top-line results from the SIGNET Trial at BAPEN's 2009 'Malnutrition Matters' Conference (Cardiff 14<sup>th</sup> October).

Dr Avenell reported a significant reduction in infection rates, such as pneumonia and *C. difficile*, with selenium supplemented parenteral nutrition (PN) in critically ill patients as long as the PN was administered for at least 5 days.

10 centres in Scotland recruited adult patients who had been in critical care for 48 hours and required PN for at least half of their nutritional requirements. Patients were randomised to one of four groups – glutamine (20.2g/day) or selenium (500µg/day) added, both glutamine and selenium added, or neither. The supplemented parenteral feed was given for up to 7 days, unless participants died or PN was discontinued. Mortality rates were high amongst trial participants.

90%+ of the 502 very sick participants who completed the study were in Intensive Care Units, the remainder in High Dependency Units, 75% being post surgery and 25% medical patients. 90% were already taking antibiotics with more than 50% having pre-existing sepsis; 25% were assessed as under-nourished. Mean age was 64 years and 40% were women.

No clear end benefit on mortality or infection rates were observed in the *glutamine arm* of the trial but with no evidence of harm. One-third of patients in this arm died or discontinued PN. In the *selenium arm*, no clear benefit on mortality was observed but significant reduction in infection rates was observed as described above.

The comprehensive SIGNET trial was undertaken as earlier systematic reviews in critical illness had suggested that both glutamine and selenium could be useful additions to parenteral nutrition treatment, but existing trials were of poor quality.

Further analysis of trial results is being undertaken and full results will be published in due course. Dr Avenell thanked and acknowledged the significant collaboration of the staff on the ICUs and HDUs in the trial, all participants and relatives for their participation together with the Scottish Intensive Care Society. Funding for the trial was provided by the Medical Research Council, Chief Scientist Office of the Scottish Government Health Directorates, Fresenius Kabi and Oxford Nutrition.

**ENDS/**

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BAPEN 'Malnutrition Matters' Conference took place at Cardiff International Arena Tues 13<sup>th</sup> & Weds 14<sup>th</sup> October 2009 Attended by ~600 delegates from research, medical, nursing, dietetic, pharmacy, industry, public health, policy-making & NHS & social services care and management staff

**BAPEN**, the British Association for Parenteral and Enteral Nutrition, is the multi-professional association and registered charity, committed to addressing malnutrition & to improving nutritional care and treatment in hospital, care & community.

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