PRESS RELEASE

13 July 2012

Applied Physiology's Navigator™ Algorithm Validated by Independent Research

New Insight Into Understanding The Cardiovascular System

A recent study published in Intensive Care Medicine [Maas et al 2012] has provided independent verification of the efficacy of the algorithm employed by Applied Physiology's Navigator™ system, bringing new insight into our understanding of the cardiovascular system. The new study shows significant concordance between different methods of estimating mean systemic filling pressure (Pms). Professor Jan Bakker, Medical Director at Applied Physiology, explains:

"This study provides further evidence that measuring Pms is possible using the Parkin algorithm. Several important advantages exist in using this particular measure to estimate the effective volume state over existing methods. The patient does not need to be sedated (as with the inspiratory hold method), nor are specific interventions necessary (as with the venous stop flow method). Above all, Navigator's measurement of the effective circulating volume is continuous, while the other methods are only effective intermittently."

Navigator™ provides a complete picture of the cardiovascular system for clinical decision making. It enables a systematic approach to cardiovascular management and provides real time, dynamic and integrated interpretation of patient measurements, and the effects of treatments on them. Critical care costs worldwide are in the order of $750 billion per year, with over 400,000 ICU beds and over 50 million major surgical procedures. There are strong pressures to improve productivity whilst maintaining and even improving the quality of care. Navigator™ has the potential to make a significant contribution.

The algorithm used to create Navigator™ was devised by Associate Professor Geoffrey Parkin at the Monash Medical Centre in Melbourne, Australia. Prof. Parkin said:

"It has been very pleasing to see the renewed interest by international groups in this measure of Pms, and to see Navigator™ now being used in hospitals in Australia, Sweden, The Netherlands and the UK. I am delighted with the new results from Maas et al, which provide an independent validation and a new impetus for our approach."

Navigator™ enables clinicians to measure Pms with the Parkin algorithm whilst also providing an index of heart performance. The graphical interface of Navigator™ combines the three principal components of the cardiovascular system: the effective circulating volume (Pms); the performance of the heart; and the state of the vasculature. Navigator therefore provides a new insight into the understanding of the cardiovascular system, facilitating more physiology-based decision support for clinicians.

Navigator™ has an Australian Register of Therapeutic Goods (ARTG) Inclusion with the TGA , CE Marking and FDA 510(k) clearance.

- ends –

Further information:

Marcie Bell, The Foundry House
marcie@thefoundryhouse.com
t: +44 (0)1480 880986

Annette Veening, Applied Physiology
E: Annette.veening@applied-physiology.com

NOTES TO EDITORS

1. Maas JJ, Pinsky, MR, Geerts BF, de Wilde RB, Jansen JR, 2012, Estimation of mean systemic filling pressure in postoperative cardiac surgery patients with three methods. Intensive Care Medicine. http://www.springerlink.com/content/rn7510h18671771h/?MUD=MP

2. Applied Physiology is a global software company that was established in 2004 to develop and commercialise clinical decision support systems for the global critical care market. The company is led by an experienced team with commercial, medical and biomedical engineering expertise.

   www.applied-physiology.com