



# REaSoN

## 2015

University of Warwick, Coventry, UK

**TITLE OF TALK:** Challenges in Treating Hypotension

**Name:** Eugene Dempsey

**Job Title:** Consultant Neonatologist

### **Biographical Sketch:**

Prof. Dempsey is a Consultant Neonatologist in the Cork University Maternity Hospital and Clinical Professor of Paediatrics and Child Health, University College Cork. He qualified from University College Cork, and completed subspeciality training in Neonatology at McGill University, Montreal. His MD was on Hypotension in the Preterm infant and he also has an MSc in Health care Ethics and Law. He is the Chief investigator for the HIP trial (Management of hypotension in the preterm infant), an FP7 funded project including centres from around Ireland, UK, Europe and North America. He is a Principal Investigator for Science Foundation Ireland and is a member of the Infant Centre at University College Cork, which has facilitated the development of strong multidisciplinary links with neurophysiology, computing and business informatics, all of whom are collaborating on a number of ongoing research projects, the theme of which involves improving outcome for the Preterm Infant.

### **LECTURE ABSTRACT:**

Whilst the incidence of low blood pressure in preterm infants seems to have fallen over the last number of years, the problem is frequently encountered in the neonatal intensive care unit and many babies continue to receive intervention. Great variability in practice persists, with a significant number of extremely low gestational age newborns in some institutions receiving some form of intervention, and in other units substantially less. A great degree of this variability relates to the criteria used to define low blood pressure, with some using blood pressure values alone to direct therapy and others using a combination of clinical, biochemical and other findings. The choice of intervention remains unresolved with the majority of centres continuing to administer volume followed by dopamine as a first line agent. Long-term follow up is available in only two randomised trials, which included a total of 99 babies. An under recognized problem relates to the administration of inotrope infusions in very preterm infants. There are no pediatric specific inotrope formulations available and so risks of errors in preparation and administration remain. I will outline these challenges and propose some potential solutions.

### **REFERENCES:**

Batton, B.; Li, L.; Newman, N.S.; Das, A.; Watterberg, K.L.; Yoder, B.A.; Faix, R.G.; Laughon, M.M.; Stoll, B.J.; Van Meurs, K.P.; et al. Use of antihypotensive therapies in extremely preterm infants. *Pediatrics* 2013, 131, e1865–e1873.  
Dempsey, E.M.; Barrington, K.J.; Marlow, N.; O'Donnell, C.P.; Miletin, J.; Naulaers, G.; Cheung, P.Y.; Corcoran, D.; Pons, G.; Stranak, Z.; et al. Management of hypotension in preterm infants (The HIP Trial): A randomised controlled trial of hypotension management in extremely low gestational age newborns. *Neonatology* 2014, 105, 275–281