

**For immediate release**

## **PRESS RELEASE**

### **New European guidelines highlight shortcomings in smoke inhalation treatment in the UK**

**Proposed management algorithms calling for empirical treatment of cyanide poisoning from smoke inhalation would require significant changes in practice**

**1 November 2011, Fordham, Cambridgeshire:** A new survey conducted at the College of Emergency Medicine (CEM) annual conference revealed that 84% of UK physicians would not routinely consider treating cyanide poisoning empirically in smoke inhalation victims – a key recommendation of the new algorithms presented at the recent European Society for Emergency Medicine (EuSEM) conference in Kos.

A group of leading UK experts, who met at a recent expert advisory board on smoke inhalation, have welcomed the new European algorithms and called for greater awareness of the dangers of cyanide poisoning from smoke inhalation. The presence of cyanide in house fire smoke is well established, as it is given off when a variety of household materials incompletely combust, including plastic, wool, wood, and foam in sofas and mattresses. With 42% of deaths in house fires coming as a result of smoke inhalation, it is the single greatest cause of mortality in house fires.<sup>1</sup>

Advisory board Chair and Burns Service Lead, Chelsea and Westminster Hospital NHS Foundation Trust, Greg Williams, is clear on the importance of raising awareness: ‘we need to fundamentally change how we manage smoke inhalation victims in the UK and challenge perceptions of what makes house fire smoke toxic. Despite the fact that cyanide is a proven cause of mortality in smoke inhalation victims,<sup>2</sup> the focus of treatment in the UK is primarily on carbon monoxide.’

Whilst the deadly effects of cyanide in smoke are relatively underrecognised in the UK, this threat is better established elsewhere. In France and the US, cyanide poisoning in house fire victims is treated with much greater regularity. One of the challenges is the difficulty in confirming cyanide poisoning in a clinically relevant timescale. Where cyanide poisoning testing is available, it is usually several days before the results are received. This means that it is difficult to establish the scale of the problem. In contrast, carbon monoxide intoxication can be diagnosed at the scene using a breathalyser.

At the EuSEM conference in Kos, two new algorithms designed to improve the prehospital and in-hospital management of smoke inhalation patients were presented. The algorithms define the circumstances in which the empirical treatment of cyanide poisoning in smoke inhalation victims should be carried out and aim to raise awareness of cyanide poisoning and improve the quality and consistency of management of smoke inhalation victims.

Dr Kurt Anseeuw, EuSEM board member and co-author of the new algorithms, highlighted the confusion around cyanide poisoning from smoke inhalation, commenting “hydrogen cyanide poisoning may well be the most misunderstood disorder in our daily practice”.

University of Leicester Professor of Emergency Medicine, Tim Coats, explains: ‘conventional cyanide antidotes can make the patient worse rather than better if they have not actually been exposed to cyanide – this made treatment in house fire smoke inhalation very challenging. However, with the licensing of hydroxocobalamin 5g we have a treatment option that is effective, well tolerated and suitable for empiric use. This makes it much more important for doctors to think about cyanide poisoning in every patient who has been exposed to smoke.’

Even where doctors are prepared to treat empirically, they may not have access to the necessary antidotes. A recent audit conducted by the official central poisoning advice body, the National Poisons Information Service (NPIS), revealed that 80% of hospitals do not stock hydroxocobalamin, despite guidance issued jointly by the NPIS and the College of Emergency Medicine that it should be immediately available in all emergency departments.<sup>3</sup>

# Ends #

## References

- 1) Department for Communities and Local Government, 2010. Fire Statistics: United Kingdom, 2008; 20.
- 2) Ferrari LA, Arado MG, Giannuzzi L, Mastrantonio G, Guatelli MA. Hydrogen cyanide and carbon monoxide in blood of convicted dead in a polyurethane combustion: a proposition for the data analysis. *Forensic Science International* 2001 15; 121(1-2): 140-143.
- 3) National Poisons Information Service, 2011. Annual Report 2010/2011; 37-38.

## Contacts for media inquiries

Emma Keeling, Say Communications  
Email: [ekeeling@saycomms.co.uk](mailto:ekeeling@saycomms.co.uk)  
Tel: 020 8971 6415

George Hickling, Say Communications:  
Email: [ghickling@saycomms.co.uk](mailto:ghickling@saycomms.co.uk)  
Tel: 020 8971 6406

## Notes for editors

### *About the College of Emergency Medicine (CEM)*

The CEM became a College by Royal Charter in 2008, and was established to advance education and research in Emergency Medicine. The College is responsible for setting standards of training and administering examinations in emergency medicine for the award of Fellowship and Membership of the College. It works to ensure high-quality care by setting and monitoring standards of care, and providing expert guidance and advice on policy to relevant bodies on matters relating to Emergency Medicine.

### *About the 2011 European Society for Emergency Medicine (EuSEM) Conference*

The 2011 EuSEM conference was held 10-14 September in Kos, Greece. EuSEM is a non-profit making scientific organisation whose aim is to 'promote and foster the concept, philosophy and the art of emergency medicine throughout Europe'. Founded in 1994 by a multidisciplinary group of experts in emergency medicine, EuSEM now incorporates 28 European national societies of emergency medicine, including the CEM.

### *About the survey*

The survey was of 94 healthcare professionals (92 doctors and 2 specialist nurses) that were delegates at the CEM 2011 conference, 21-23 September, Gateshead. The survey was conducted by face-to-face interview at the conference. Of the 92 doctors responding, 5% (n=5) would 'always' consider treating fire smoke inhalation victims empirically with an antidote for cyanide poisoning; 11% (10) 'often'; 47% (43) 'occasionally'; and 34% (31) 'never' (3% (3) don't know).

### *About the expert board members*

The following experts in emergency medicine, toxicology and the emergency services met at a recent advisory board (8 August) specifically to consider smoke inhalation and cyanide poisoning:

- Chair: Dr Greg Williams, Burns Service Lead, Chelsea and Westminster Hospital NHS Foundation Trust
- James Amos, Emergency Preparedness Manager, South Central Ambulance Service
- Prof Tim Coats, Professor of Emergency Medicine, University of Leicester
- Dr Paul Dargan, Consultant Physician and Clinical Toxicologist, Guy's & St Thomas' Hospital NHS Foundation Trust
- Dr Alan Montague, Emergency Medicine Consultant, North Bristol NHS Trust. Honorary Senior Lecturer at the University of Bristol

This advisory board was supported by Swedish Orphan Biovitrum (SOBI), the company responsible for the supply of Cyanokit in the UK.

### *About Cyanokit® (hydroxocobalamin)*

Hydroxocobalamin is an analogue of vitamin B12. It is licensed for treatment of known or suspected cyanide poisoning.

*About Swedish Orphan Biovitrum (SOBI)*

SOBI is a leading European specialty pharmaceutical company focused on providing and developing specialty pharmaceuticals for patients with rare diseases and significant medical needs. The portfolio comprises about 60 marketed products, as well as projects in late clinical phase. Key therapeutic areas are hematological diseases, autoimmune diseases, hereditary metabolic disorders and therapeutic oncology. In 2010 Sobi had revenues of SEK 1.9 billion and approximately 500 employees. The share (STO: SOBI) is listed on NASDAQ OMX Stockholm. For more information please visit [www.sobi.com](http://www.sobi.com).