

## Who should attend?

This course will appeal to professionals working in industry, academia, and the NHS who are involved in the design, evaluation and implementation and use of health care products and services.

## Meeting teaching and training needs...

CPD4 Health Innovation has an exciting programme of CPD courses for both the health provider and the health supplier sectors. The content of these courses is informed through a range of events which draw together individuals from academia, clinical settings and industry, to discuss skill development needs in the sector.

We work with acknowledge experts in each of the relevant disciplines from across industry, NHS and higher education to ensure our programmes are of the highest quality and relevant to both individual and organisational need.

**Cost of the event is: £750 per person**

**To Book your place or register your interest,  
please go to:**

[www.cpd4healthinnovation.org.uk](http://www.cpd4healthinnovation.org.uk)

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CPD<sup>4</sup>  
Health  
Innovation


**CPD Master Class**  
8<sup>th</sup> – 12<sup>th</sup>. March 2010

## Patient Safety – a Systems Approach

In 1999 Kohn wrote an article entitled “To Err is Human: Building a safer health system”. The report found that as many as 98,000 people died each year due to medical errors in the U.S.A. At the same time innovations started to increase the use of medical devices, ICT and systems engineering in health provision.

These factors have led to patient safety being a frequent topic for journalists, health care managers, practitioners and users. How is acceptably safe health care provision to be provided? What are the methods and techniques that can be employed to assure patient safety? Can the methods and techniques employed in ultra-safe industries such as civil-aerospace and the nuclear industry be applied to health care systems?

**Training and Development  
for Health Technology**



CPD Module  
8<sup>th</sup>. -12<sup>th</sup>. March 2010  
University of York, York

## Patient Safety - a Systems Approach

**“The concept [is] that bad systems, not bad people, lead to the majority of errors and injuries”**

L. Leape, Harvard School of Public Health, 2005

### **Aims**

To educate health professionals (medical device developers, healthcare procurers, managers, clinicians) to:

- understand the scale and impact of the problem of unsafe practice
- recognize hazardous or unsafe situations
- develop skills with which to appraise and analyse how and why unsafe practice may have arisen, and how it might have been prevented
- be able to participate with confidence in changing systems to prevent unsafe practice

The team in the Department of Computer Science at the University of York has a worldwide reputation for its CPD activity in system safety. Students from both the medical device and e-health community have attended these courses.

A combination of teaching methods are used to produce a stimulating and challenging learning experience. This one-week masters' level course will address subjects including the following:

- Overview and context
- Underlying concepts and theories
- Learning from others, such as the aerospace domain
- Identifying errors, hazards and accidents
- Responding to errors – individuals, procedures, equipment, teams

## CPD week programme

Monday	<b>Overview;</b> <b>Nature &amp; scale of the problem;</b> <i>Discussion - why patient safety via systems;</i> <i>Underlying concepts and theories;</i> <i>Safety Lifecycle;</i> <i>Preliminary hazard identification (PHI)</i> <i>Case Study: PHI.</i>
Tuesday	<b>Risk Assessment;</b> <i>Case Study - risk assessment;</i> <i>Safety Requirements;</i> <i>Case Study – safety requirements;</i> <i>Controlling Safety Risk through Design Process;</i> <i>Discussion – Risk and Design for Patient Safety.</i>
Wednesday	<b>Fault Trees;</b> <i>Case Study - fault tree construction;</i> <i>Systematic and common cause failure issues;</i> <i>Safety cases;</i> <i>Case study – safety case development;</i> <i>Ethical and legal issues.</i>
Thursday	<b>Human factors;</b> <i>Discussion – Human factors, safety cases and legal issues;</i> <i>Transition to use and operational safety cases;</i> <i>Case Study – operational safety case;</i> <i>Responding to errors: safety management systems;</i> <i>Case Study - Safety Management Studies.</i>
Friday	<b>Monitoring for safety;</b> <i>Case Study - monitoring for safety;</i> <i>Responding to error - individual competencies;</i>  <i>Conclusions.</i>