## **Survival Data Analytics in Healthcare**

## **Adele H Marshall**

Mathematical Sciences Research Centre, School of Mathematics and Physics, Queen's University Belfast, <a href="mailto:a.h.marshall@qub.ac.uk">a.h.marshall@qub.ac.uk</a>

Survival analysis is a statistical technique used to model time to event data commonly used in medical statistics and in healthcare applications. This talk will discuss the use of survival analysis in modelling the time that patients spend in hospital using Coxian phase-type distributions with an extension of this approach to consider a general model to represent time in Emergency Departments (ED). This evolution of survival analysis will be further explored within Healthcare 4.0. An example of such will be discussed using the latest survival data analytics approaches for patients time on ventilators in Intensive Care Units.