**Hundreds of millions of health care decisions** are made every day. Most decisions are so routine that we don’t always notice them: do we give paracetamol for a fever? do we deliver oxygen to a target of 94% or 98%? do we stop the antibiotics this morning or this afternoon? It is inconveivable that the aggregate effect of all these decisions is unimportant.  
Randomised controlled trials (RCTs) are our ‘go to’ method for studying a single decision. But **traditional RCTs are slow, expensive and cumbersome**. Moreover they deliver results that are true on *average* but not adapted for the individual. Personalised medicine recognises that variations in genetics and our current health require adaptations of standard treatments. With enormous sample sizes, RCTs could generate such evidence but the cost would be prohibitive.  
Embedding the trial in the electronic health record (EHR) automates data collection and reduces cost. Complete point of care randomisation would remove the majority of the remaining cost but only if presumed consent is possible. This depends on designing a vehicle to deliver experimental randomisation safely as part of routine care.  
All **randomised** trials depend on the concept of **equipoise** to balance the clincian’s duty to provide the best current treatment for the patient, and the scientist’s duty to identify the best future treatment. Equipoise can defined as “honest, professional disagreement among expert clinicians” about the best treatment strategy.[@London2018@410] But where those strategies are already part of the range of usual care, then we argue randomisation is already happening. Small variations in care are ubiquitous and depend on nothing more than the timing of your illness, the hospital you visit, and the doctor you encounter.  
We normally see such variation as a problem, but we propose a simple and safe modification of REMAP (**Randomised Embedded Multifactorial Adaptive Platform**)[@angus2015] trials using **nudge theory** to extract learning instead. We will embed in the EHR a clinical decision support (CDS) framework. Where there is existing good evidence, the CDS will alert the clinician at the point of care and reduce variation. However, where there is equipoise, the alert will randomly nudge the clinician. ‘Doctor A’ will be nudged to behave for that instant like ‘Doctor B’, and ‘Doctor B’ like ‘Doctor A’. The bedside clinician remains in charge. The nudge is *not* a mandate. Where the individual clinician also has equipoise and complies with the nudge, we recruit to our embedded RCT. Where the expert clinician refuses because of their specific knowledge, we characterise the patient and learn. Regardless the patient receives the best care, and the scientist learns.  
We use this safety net to justify conducting the trial using an opt-out consent model. For peri-operative care, patients are alerted to the study in the pre-assessment clinic. They can opt-out of any or all of the interventions being evaluated. Those supporting the study can then be efficiently recruited without further cost or interventions, and the trial can scale. As the trial scales, we generate the sample size to study the varying response to different treatments and deliver a personalised treatment strategy that steadily optimises those millions of small decisions.