

A feasibility trial to assess a web-based care management system to improve self-management and health outcomes in diabetes in children and adolescents

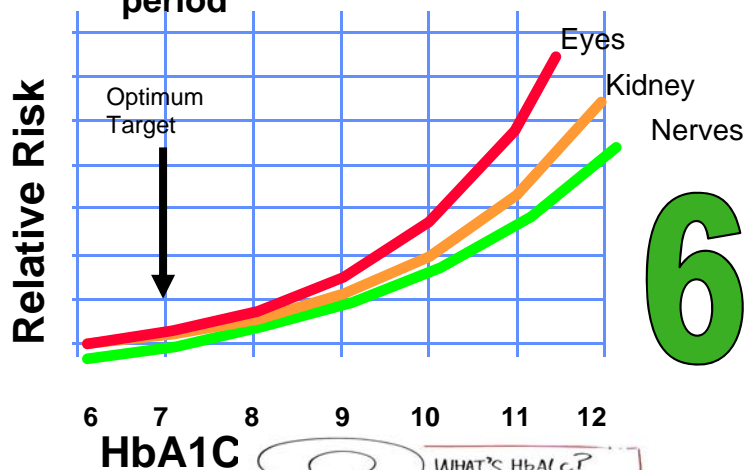
Deborah Christie¹, Gabriella Romano¹, Russell Viner², Rebecca Thompson¹, Louise Potts¹, Peter Hindmarsh² 1. UCL Hospitals NHS Foundation Trust 6th floor, Central, 250 Euston Road, London, NW1 2PG 2. UCL Institute of Child Health

1 INTRODUCTION
Only 17% of children achieve adequate control of their diabetes



- Long-term complications
- Renal failure
 - Lower limb amputation
 - Blindness
 - Coronary heart disease
 - Reduced fertility

2 For those at risk a small improvement would reduce by half the risk of developing eye and kidney problems over a 10 year period



WHAT'S HbA1C?
THE AMOUNT OF SUGAR ATTACHED TO RED BLOOD CELLS OVER A 3 MONTH PERIOD

3 Information technology sits at the interface between monitoring and informing therapeutic decision making.

Web based care-management system developed by iMetrikus inc (Carlsbad, California, USA)



8

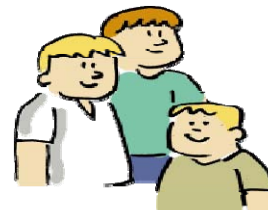
4 DESIGN
Randomised Control Trial
Children/Adolescents 8 – 18 years old



5 Clinical data, qualitative and quantitative data currently being analysed

Clinical	Investigations	Lifestyle
Height Weight HbA1c Blood glucose measurements (number and mean in previous month) Hypoglycaemia measures	Use of new system Patient satisfaction Ease of use	Diabetes Family Responsibility Questionnaire (DFRQ) Paediatric Quality of Life (PedsQoL) – diabetes module Strengths and Difficulties Questionnaire (SDQ) The Stages of Change Readiness and Treatment Eagerness Scale (SOCRATES)

6 RESULTS
High acceptability and enthusiasm
Only 4% drop-out.



7 Preliminary results are positive

Used regularly to download blood glucose measurements.
Easy to set up and use.
Helpful to see real time patterns of control
Good way of storing data.
Useful format for clinic discussions and informed therapeutic decision making.

