

Background

- Diet and lifestyle interventions, targeting weight loss, form the initial treatment in newly diagnosed type 2 diabetes (T2D)
- However, despite evidence supporting their use for ongoing T2D, there are no reported syntheses regarding their efficacy in delaying progress to medication in newly diagnosed, medication naïve patients

Methods

Searches: Conducted from inception to 31/03/2015 including the following databases: the Cochrane Central Register of Controlled Trials, MEDLINE, EMBASE, AMED, Web of Science, SCOPUS, CINAHL and a manual bibliography search. Study selection process is shown in Fig. 1

- **P**opulation: Treatment naïve adults (>18yrs) with newly diagnosed T2D (<1yr)
- **I**ntervention: Diet, exercise, weight loss or education
- **C**omparator: Standard care
- **O**utcomes: Time to progression of diabetes defined by medication initiation, HbA_{1c}, weight, body mass index, blood pressure and total cholesterol
- **S**tudies: Randomised controlled trials, non-randomised controlled trials and controlled before-and-after studies

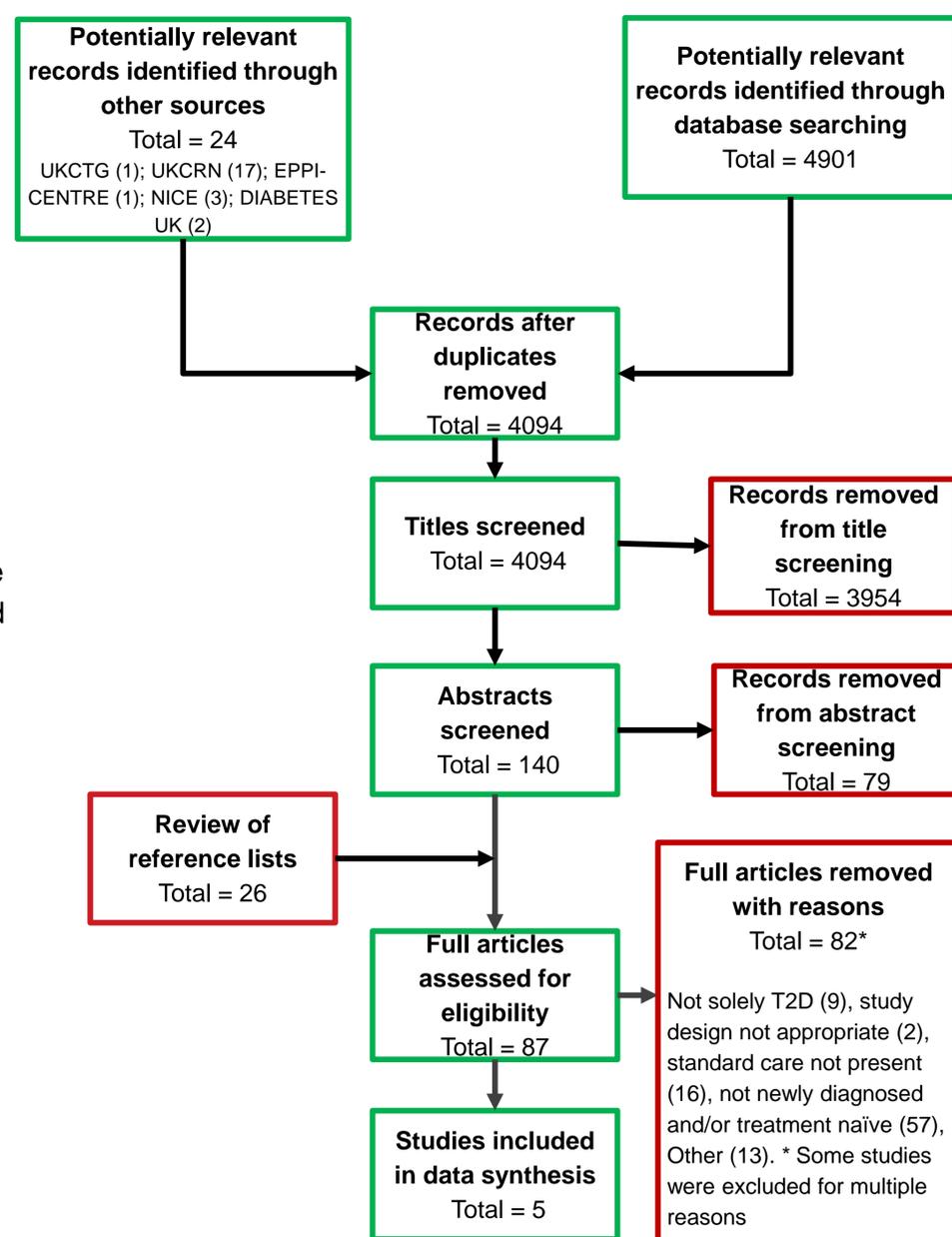


Fig 1: Adapted PRISMA flow diagram of study selection



Results

- **I**nterventions: 1 supported exercise, 1 modified-fat diet and 3 structured education.
- **S**ample size: Ranged from 21 to 1,139 Participants with mean age ranging between 46 and 57 years.
- **S**ettings: Hospital outpatient clinics (3) and unclear (2).

Quality assessment

- Medium quality due to inadequate reporting of the randomisation process and study attrition.
- The trials, conducted between 1978 and 2011, reflected a lack of recent, up-to-date primary research.

Conclusions

- Evidence suggests a sustained clinical benefit, including delayed progression to medication treatment, achieved by complex educational interventions as an initial treatment for T2D.
- Due to the lack of recent high quality evidence, further research is needed to explore optimal characteristics of this approach prior to implementing a service in community pharmacy.