was the first RA TTT review where studies were grouped in this way. We wanted to compare if our approach had been adopted in reviews of hypertension, hyperlipidemia or diabetes.

### METHODS:

We searched MEDLINE for systematic reviews (SRs) of TTT studies in hypertension, hyperlipidaemia or diabetes.

### RESULTS:

Eleven SRs were included; eight were in diabetes, and four were in hypertension, while none were in hyperlipidaemia. The diabetes SRs evaluated different insulin regimens (n = 3), non-insulin medications (n = 1), any antidiabetic treatment (n = 2), metformin monotherapy versus combination therapy (n = 1), and tight versus conventional glucose control (n = 1). The metformin review grouped studies by outcome whereas all other diabetes SRs grouped studies by treatment. Two hypertension SRs evaluated the effects of any treatment on two blood pressure targets, whereas one evaluated two different treatment regimen effects on the same blood pressure target. No SR in hypertension or diabetes included a mix of TTT versus usual care, and/or same treatment protocol different targets, and/or different treatment protocols same target study designs.

### CONCLUSIONS:

In RA TTT does not refer to a single concept but a range of different approaches to the treatment of patients and the evidence reflects this. Whilst our approach to grouping RA TTT studies in a review was novel, this made it complex for us to synthesize evidence and draw general conclusions. We did not identify any TTT reviews in hypertension or diabetes including a mix of the TTT approaches we identified in RA. At present, a comparison of the strengths and limitations of our TTT review study grouping with reviews of hypertension, hyperlipidemia or diabetes cannot be made.

## VP171 The Safety Of Barbed Sutures In Cosmetic Surgery


### AUTHORS:

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### INTRODUCTION:

Knotless barbed sutures can eliminate knot tying when patients are undergoing cosmetic surgery (CS). Although benefits reported on clinical outcomes are obvious, many studies have failed to demonstrate the potential for barbed sutures to mitigate adverse events. Thus, this study aimed to determine the safety of knotless barbed suture in CS.

### METHODS:

PubMed, EMBASE, Cochrane Register of Clinical Studies, and ClinicalTrials.gov were searched for randomized controlled trials (RCTs) and cohort studies comparing barbed sutures with conventional sutures in CS (until 30 June 2016). Quality assessment was conducted using Cochrane recommendations. Review Manager was applied to analyze the data, and we sequentially omitted each study to perform sensitivity analyses.

### RESULTS:

A total of five RCTs (low to moderate risk of bias) and six cohort studies (low to moderate risk of bias), proved eligible (3,481 patients). The CS included body contouring operations, breast reconstruction, lipoabdominoplasty, abdominoplasty and wound closure of cesarean delivery. Comparing to conventional sutures, pooling data showed that general adverse events of barbed sutures were not significantly different (Odds Ratio, OR = .6, 95 percent Confidence Interval, CI .24 to 1.52, P = .28), while the subgroup analysis showed that fewer adverse events occurred in cohort studies, though with high heterogeneity ($I^2$ = 87 percent). Specifically, no significant differences were shown between barbed and traditional sutures in wound dehiscence (OR = .55, 95 percent CI .29 to 1.03, P = .06), incisional infection (OR = .56, 95 percent CI .22 to 1.48, P = .25), seroma (OR = .87, 95 percent CI .42 to



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1.79, P = .70) and hematoma (OR = 1.52, 95 percent CI .29 to 7.99, P = .62).

**CONCLUSIONS:**

No differences were found between knotless barbed sutures and conventional sutures generally, but the cohort studies suggested barbed sutures resulted in fewer adverse events with longer follow-up. Thus barbed sutures are considered a safe surgical technique in CS. More evidence with larger sample sizes and longer follow up are needed to confirm the advantages of this technique in the future.

## VP172 Clinical Effectiveness Of A Predictive Risk Model In Primary Care

**AUTHORS:**

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**INTRODUCTION:**

New approaches are needed to safely reduce emergency admissions to hospital by targeting interventions effectively in primary care. A predictive risk stratification tool (PRISM) identifies each registered patient's risk of an emergency admission in the following year, allowing practitioners to identify and manage those at higher risk. We evaluated the introduction of PRISM in primary care in one area of the United Kingdom, assessing its impact on emergency admissions and other service use.

**METHODS:**

We conducted a randomized stepped wedge trial with cluster-defined control and intervention phases, and participant-level anonymized linked outcomes. PRISM was implemented in eleven primary care practice clusters (total thirty-two practices) over a year from March 2013. We analyzed routine linked data outcomes for 18 months.

**RESULTS:**

We included outcomes for 230,099 registered patients, assigned to ranked risk groups.

Overall, the rate of emergency admissions was higher in the intervention phase than in the control phase: adjusted difference in number of emergency admissions per participant per year at risk, delta = .011 (95 percent Confidence Interval, CI .010, .013). Patients in the intervention phase spent more days in hospital per year: adjusted delta = .029 (95 percent CI .026, .031). Both effects were consistent across risk groups.

Primary care activity increased in the intervention phase overall delta = .011 (95 percent CI .007, .014), except for the two highest risk groups which showed a decrease in the number of days with recorded activity.

**CONCLUSIONS:**

Introduction of a predictive risk model in primary care was associated with increased emergency episodes across the general practice population and at each risk level, in contrast to the intended purpose of the model. Future evaluation work could assess the impact of targeting of different services to patients across different levels of risk, rather than the current policy focus on those at highest risk.

## VP173 Determinants Of Behavioral Health System Efficiency In Organisation For Economic Co-operation And Development (OECD) Countries

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