independently by three reviewers. Search terms and MESH headings included: Nutrition OR diet OR eating habits AND education OR teaching OR training OR counselling AND health OR morbidity OR mortality OR well-being OR quality of life. Studies of NEPs involving educational interventions on whole diet modification (i.e. improving total nutritional intake) vs. usual diet or no intervention were included. Studies lacking a comparison group, case-control studies and those involving single dietary or nutrient modifications were excluded. Papers were independently assessed for eligibility; quality (Agency for Healthcare Research and Quality assessment tool); risk of bias (Cochrane Risk of bias 2 tool) and data extracted. Outcomes of interest were nutritional status, biochemical markers and quality of life. Data heterogeneity meant meta-analyses could not be performed so a descriptive approach was used.

Results From a total of 8453 papers, 18 studies were identified as relevant and grouped by disease: cancer (n=8); Type 2 diabetes (n=6) and CKD (n=4). NEPs in 12 studies were dietician-led, with the remainder delivered via telehealth (n=2), group therapy (n=2), nutritionist (n=1) or nurse specialist (n=1). Results showed that NEPs had statistically significant improvements in quality of life and prevention of malnutrition in cancer patients, but did not prevent deterioration in weight. Diabetic patients showed improvements in weight loss, reduced waist circumference and HbA1c; however changes in BMI, blood pressure and cholesterol were not significant. NEPs did not improve clinical markers in CKD (e.g. cholesterol, phosphate and eGFR), but following the intervention patients reported better knowledge of their illness.

Conclusions This review suggests that nutrition education programmes are an important tool in improving health outcomes of patients with cancer, Type 2 diabetes and CKD.

9 SHOULD WE BE PROVIDING FOOD DIRECTLY TO PATIENTS IN PRIMARY CARE? A SYSTEMATIC REVIEW OF THE LITERATURE

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Background The World Health Organization recommends all countries to facilitate healthy eating through primary care settings; recognised as one of the 'best buys' for improving the health of societies. However, health professionals face barriers to discussing nutrition and weight management in consultations, warranting alternative models of support to be explored. Providing food directly to patients in primary care is an underexplored yet promising approach to healthy eating and weight management.

Objectives This systematic review aimed to determine whether providing food to patients in primary care facilitates weight loss and improves other health outcomes.

Method A systematic literature review was conducted using four electronic databases. Interventions that directly and exclusively provided foodstuffs and/or supplements to patients in primary care settings were included. Interventions that involved other components such as exercise classes or education sessions were excluded.

Results Four studies fulfilled the inclusion criteria; two from the United Kingdom, one from the USA and one from Israel. Two studies utilised meal replacement products but differed in length and intensity of the intervention, another study provided green tea and vitamin E supplementation to patients and the final study incorporated a voucher for use at a farmers' market hosted at a primary care clinic. Three of the four studies observed some weight loss among participants and all studies observed at least one other improvement such as reduced waist circumference, blood pressure or glycosylated haemoglobin (HbA1c). However, the methodological quality of the studies ranged from weak to moderate, reducing confidence in results.

Discussion/Conclusion A small but promising body of literature exists on providing food directly to patients in primary care. There is clear opportunity for further research on the efficacy and cost-effectiveness of directly providing food to patients to support weight loss, improve health outcomes and ultimately inform policy initiatives for primary care.

10 HOW DOES SELF-PERCEIVED NUTRITION COMPETENCE CHANGE OVER TIME DURING MEDICAL TRAINING? A PROSPECTIVE LONGITUDINAL OBSERVATIONAL STUDY OF NEW ZEALAND MEDICAL STUDENTS

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Background Medical nutrition education aims to equip doctors with adequate nutrition knowledge, skills, attitudes and confidence to counsel patients about how to improve their diet and health. Incorporating sufficient nutrition education into medical curricula remains an ongoing challenge for medical schools.

Objective This study aimed to describe changes in medical students' self-perceived nutrition competence at three time points during medical training.

Method A prospective longitudinal observational study was conducted among one year-group of students at the University of Auckland, School of Medicine. In May 2016, Year 2 medical students (phase 1, preclinical) were surveyed for self-perceived nutrition competence using the validated NUTCOMP tool. The survey was repeated with the same students in February 2018 as Year 4 students and July 2019 (phase 2, clinical) as Year 5 students.

Results In 2016, 102 of 279 eligible Year 2 medical students completed the survey [response rate (RR 36.7%)]. In 2018, 89 Year 4 students repeated the survey (RR 87.3%) and 26 students as Year 5 students in 2019 (RR 25.5%). There was a significant increase in total NUTCOMP scores (knowledge, skills, confidence to counsel and attitude towards nutrition) between Year 2 and Year 4 (p=0.012). There was a significant increase in the confidence to counsel construct (mean difference 7.615, 95% CI 2.291-12.939, p=0.003) between Year 2 and Year 4. Constructs with lowest scores at all time points were nutrition knowledge and nutrition skills. There was clear desire for more nutrition education from all students: Year 2 [mean=3.8 out of 5, (1.1)], Year 4 [mean=3.9 out of 5 (0.9)], Year 5 [mean=3.8 out of 5 (0.8)].

Conclusion Medical students' self-perceived nutrition competence in providing nutrition care increased modestly at three points throughout medical training. Opportunity exists for further supporting medical students to increase their competence nutrition care, which could be achieved through mandatory and greater medical nutrition education.

11 AN EVALUATION OF THE CURRENT STATE OF HYPERTENSION DIAGNOSIS AND MANAGEMENT IN A RURAL PRIMARY CARE PRACTICE

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Background Hypertension is the leading cause of cardiovascular-related mortality in Ireland. Due to the lack of diagnosis, awareness and early treatment, the prevalence of hypertension in the community is increasing at an alarming rate. Latest guidelines suggest the use of ambulatory blood pressure measurement (ABPM) as the gold standard to diagnose hypertension.
Objectives To investigate the current prevalence of hypertension in a rural primary care practice by assessment of current anthropometric measures and the uptake of 24hr ABPM. This study also explores the development of a practice-based algorithm to better identify and manage patients with hypertension.
Methods This study included (1) a retrospective cross-sectional chart audit assessing the anthropometric measurements and uptake of 24hr ABPM in patients aged ≥25 years with the last clinic BP systolic ≥150mmHg or had a coded diagnosis of hypertension and (2) the development of a hypertension management protocol based on clinical guidelines.
Results A total of 890 patients were included. Out of those with a coded diagnosis of hypertension (78%, n=691), the mean BMI was 29.9 with a mean weight of 84.4kg, 13% were current smokers and 64% had an ABPM. With 22% (n=199) of the patients without a coded diagnosis of hypertension, the mean BMI was 28.8 with a mean weight of 85.2kg and 26% had an ABPM. Overall, 18% of the patients had diabetes and 62% of the patients had a lipid disorder.
Discussion With most of the patients currently being overweight and have a history of lipid disorder along with almost half of the patients without an ABPM, this audit exposes a significant gap in diagnosis and management of hypertension. To meet guideline targets, an evidence-based hypertension protocol (figure 1) was designed and implemented where the practice nurses were empowered to measure, identify and refer patients with elevated blood pressure for ABPM and nutritional counselling.

12 EVALUATING THE IMPACT OF A SUSTAINABLE KITCHEN SUPPLYING AFFORDABLE SURPLUS-FOOD BASED MEALS TO LOCAL COMMUNITIES IN WINCHESTER

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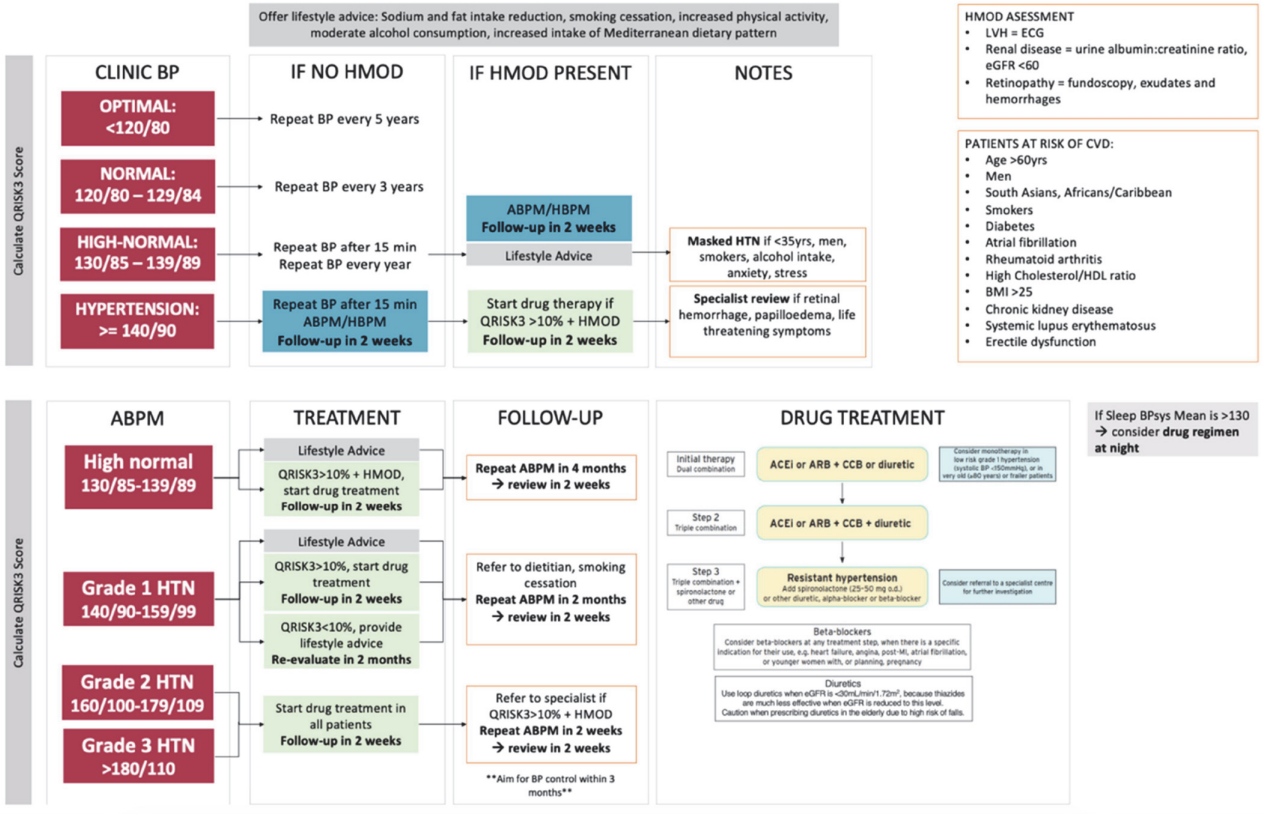
Background Community kitchens comprise of small groups of people who meet regularly to prepare meals, and are a means



Abstract 11 Figure 1 Prototype of the hypertension protocol developed to streamline diagnosis and management of hypertension in the practice