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The impact of "tailored care" on patient outcome in cardiovascular

disease. Cardiovascular disease (CVD) remains a major cause of morbidity and mortality in the UK and Ireland. A recent clustered randomised controlled trial looked at the effect (in terms of outcome) of intensive practice and patient care plans for patients with established CVD (*BMJ 2009; 339: b4220*). Patients (n=903) from 48 practices on the island of Ireland were recruited into the study. The "intervention" practices received training in prescribing and behaviour change, ongoing administrative support and a quarterly newsletter; their patients received individually tailored motivational training and goal identification with target setting

for lifestyle change. The control practices continued with their usual care for patients with established CVD. The intervention patients were reviewed every 4 months while the control group had no contact with researchers, after initial baseline evaluation, during the study. The primary outcome was a composite of: the proportion of patients at 18 months above target blood pressure measurement and total cholesterol levels, the number of hospital admissions during the study and the change in physical and mental health status (using validated tools). **Results showed significant reduction (44%) in hospital admissions for the intervention group (and at individual level) vs. the control group.** This was shown to be due to a reduction in CVD-related admission. **There were no significant differences between the groups in terms of blood pressure readings, cholesterol levels or lifestyle changes.** The study reported baseline levels of blood pressure and cholesterol in all patients that were lower than baseline measurements recorded in previous studies, which suggested that overall existing care for management of established CVD might have been difficult to improve further. The authors comment on the possibility of selection bias in that, in order to participate in the study, it was necessary to have a practice nurse and this might have impacted on the type of practice eligible for inclusion in the Irish setting. However, Irish practices, participating in Heartwatch were excluded; moreover the results were similar irrespective of whether the practice was in the Irish Republic or in Northern Ireland, which suggests that the results should be generalisable to the wider general practice setting. They conclude that current efforts in the management of established CVD at primary care level should be maintained and future focus should explore the value of tailored intensive care plans for those patients with additional absolute risk or who are less likely to be receiving optimal therapy.



Why have excipients in medicines? Medicines contain not only active drugs but also other "inactive" ingredients (known as excipients) and a recent article outlined their functions (*DTB 2009; 47:81-4*). Excipients are added to medicines for several reasons including: to ensure homogeneity of powders, flow of granules etc during product manufacture (e.g. gelatin, polyethylene glycol); for product stability (e.g. antioxidants such as ascorbic acid) and preservation (e.g. benzalkonium chloride in eye drops); to make medicines more palatable (e.g. sucrose, peppermint) or easier to take (e.g. coating with cellulose derivatives to reduce adherence to oesophageal mucosa); to enhance drug delivery (e.g. solvents, ointment bases, diluents) or to enhance the drug

effect (e.g. adjuvants such as aluminium phosphate in vaccines). Excipients are evaluated by regulatory authorities, in terms of their quality, the quantity used and the justification for their inclusion in a medicine. The Summary of Product Characteristics must contain a list of excipients in the medicine, and information is also supplied on the packaging. The authors of the article note, that while excipients are "inactive" in terms of expected drug effect, some are known to have unwanted effects such as worsening of diabetic control (e.g. fructose / glucose containing medicines), allergic / anaphylactic reaction (e.g. in subjects with known allergy to some vaccine constituents such as neomycin or egg), gastrointestinal upset (with medicines containing formaldehyde). Clinicians are reminded that the excipients, contained in a medicine, may need to be considered prior to prescribing that medicine for an individual patient (e.g. those with lactose intolerance). Moreover, if an adverse drug reaction occurs, they may need to consider not only the active drug substance but also the formulation and excipients of the medicine.



Soluble fibre works better than insoluble fibre in IBS. Irritable bowel syndrome (IBS) is a common functional gastrointestinal (GI) disorder, characterised by recurrent episodes of abdominal pain or discomfort associated with an altered bowel habit, not explained by any structural or biochemical changes in the gut. Dietary advice often forms part of the treatment plan for IBS. A recent clinical trial compared the effectiveness of psyllium (soluble fibre) or bran (insoluble fibre) with placebo on symptoms and quality of life in IBS patients in primary care (*BMJ 2009; 339:b3154*). Patients diagnosed with IBS, either via the Rome II criteria (www.romecriteria.org) or

via a pragmatic definition (chronic GI disorder of recurrent abdominal pain and/or bloating with disturbed bowel habits, +/- mucus but no blood in stools, palpable tender colon in the absence of alarm symptoms such as weight loss, rectal bleeding, anaemia) were identified by primary care records and invited to participate in the trial. IBS patients (78% female, mean age 34 years, range 18-65 years) were randomised to receive 10g of psyllium (n=85), 10g bran (n=97) or rice flour (placebo, n=93) per day, taken as two divided doses with food. Primary outcome was adequate symptom relief during at least two weeks in the previous month, assessed at monthly intervals for 3 months. Secondary end points included severity of IBS symptoms and abdominal pain, quality of life and adherence to medication, all of which were measured using validated instruments. **Results:** Rates of response (i.e. adequate symptom relief) were significantly higher with psyllium than with placebo in months one (57% vs. 35%) and two (59% vs. 41%); month 3 showed a non-significant increased rate of response with psyllium (46% vs. 32%). Rates of response for the bran group were 40%, 51% and 57% in months 1, 2 and 3 with only the results from month 3 showing a significantly increased rate of response compared with placebo. In terms of severity of symptoms, the response was greater in the psyllium group compared with placebo but the difference was significant only in the third month. Patients taking bran showed no improvement in severity of symptoms compared with placebo. Limitations to the study included the fact that the "pragmatic" diagnostic criteria might have allowed inclusion of patients who didn't have IBS. Also, there was a large dropout rate during the study (40%), especially in the bran group during the early phases, due to worsening of symptoms. However, the authors note that similar findings have been reported with bran previously. They conclude that **the study supports the addition of soluble fibre, such as psyllium, but not insoluble fibre in the clinical management of patients with IBS.**



Is there a link between migraine and cardiovascular disease? Migraine is a common, chronic disorder with episodic attacks. The physiology of migraine is incompletely understood, but vascular mechanisms are implicated. Several population-based studies have suggested a link between migraine and ischaemic stroke / cardiovascular disease (CVD). A recent review article assessed all the available evidence on this topic (*BMJ 2009; b3914*). A total of 25 observational studies were eligible for inclusion in the overall review: 13 case control studies, 10 cohort studies and 2 cross-sectional studies. **Results showed that there was a 73% overall increased risk of ischaemic stroke in patients with migraine**

(principally in the subgroup with aura). **Additional risk factors included: age <45 years, female gender, use of oral contraceptives (OCP) and smoking.** The review did not find an association between migraine and haemorrhagic stroke / myocardial infarction or death due to CVD. The following limitations were noted: because migraine is biologically heterogeneous, there were differences in how the disease had been diagnosed and classified in the various studies; similarly several studies only looked at combined CVD outcomes. All of these factors could make pooling of the data less scientifically sound. However, the authors note that the most consistent evidence was the increased risk of ischaemic stroke among people with migraine, which seems to be driven by migraine with aura. In view of the additional risk factors outlined above, they recommend that young women who have migraine with aura should be strongly advised to stop smoking and that a method of contraception, other than OCP, may need to be considered in this group.



Don't Forget! The vaccination programme for the Pandemic (H1N1) 2009 influenza has begun in Ireland; by the end of the first week, almost 30,000 doses had been administered to subjects in the at-risk categories. Comprehensive information on the programme, together with the full prescribing information for each vaccine (Pandemrix® and Celvapan®) is available to download (www.swineflu.ie; www.imb.ie). Healthcare professionals are requested to report any *suspected* adverse drug reactions with the

vaccines to the Irish Medicines Board, either by post, phone or via online reporting.