We select the letters for these pages from the rapid responses posted on bmj.com favouring those received within five days of publication of the article to which they refer. Letters are thus an early selection of rapid responses on a particular topic. Readers should consult the website for the full list of responses and any authors' replies, which usually arrive after our selection.

OVERPRESCRIBING PPIs

An old problem

Forgacs and Loganayagam described the problem of overprescribing proton pump inhibitors (PPIs).¹ In June 2002 we wrote to many journals—and were ignored—about long term side effects being identified in general practice and surgery patients, with the then extensive, long term use of PPIs. At the time we shared an increasing number of patients with dependence on PPIs who experienced acute, severe gastritis and gastro-oesophageal reflux if they suddenly stopped or missed their PPIs; some showed refractory gastroparesis and severely delayed jejuno-ileal and colonic peristalsis when trying to reduce or stop their treatment after taking the PPI for extended periods (>3-60 months).

PPIs block the normal homoeostasis of the gastro-jejuno-ileal-colonic function (owing to their very specific, acid production blocking only, cellular-molecular actions: they block only the cellular or molecular acid production and allow secondary build up or excessive reduction of the hormones gastrin, cholecystokinin, secretin, glucagon, motilin, VIP, substance P, somatostatin, and other biologically active polypeptides, which changes all the homoeostasis processes of the whole gastrointestinal system); this allows the multiple secondary interdependent hormonal levels to rise or drop out of control and thus the parietal cells massively increase their cell surface membrane folds (7-14 times), until they appear fan-like on the gastric surface, increasing their ability to produce sudden large quantities of acid when the PPI stops. This results in a Zollinger-Ellison-like syndrome, and the patients restart their PPIs or even increase

the dose, compounding the situation. We have been unable to identify any similar reports in the current medical literature, and we were concerned that independent gastroenterologists were aware of the indicated effects but had not considered them to be a problem.

Medical practitioners should consider reducing PPI medications in very gradual steps and question pharmaceutical companies' pursuit of ever more lucrative drugs that do more harm, parallel to their good, to the human body when basic homoeostatic systems are forgotten or ignored.

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Forgacs I, Loganayagam A. Overprescribing proton pump inhibitors. *BMJ* 2008;336:2-3. (5 January.)

Time for a hospital antacid policy on *Clostridium difficile*

Forgacs and Loganayagam mention the increasing risk of *Clostridium difficile* infection with use of proton pump inhibitors (PPIs) in hospitals.¹ The ability of the vegetative form of *C difficile* to survive in gastric contents with a raised pH caused by excess use of PPI has been proposed as a potential mechanism.² It is therefore important that PPIs are used as intelligently as the antimicrobials in every hospital. The editorial mentions several reports of the misuse of PPIs. In addition, Grube and May found that as many as 71% of patients in general medicine wards received some sort of acid suppression without an appropriate indication.³

In another study of 357 patients who received stress ulcer prophylaxis during their stay in the intensive care unit, 80% continued on gastric acid suppressants on transfer from the unit, with the treatment being inappropriate in 60%, 25% of them being discharged with inappropriate prescription of gastric acid suppressants.⁴ The problem is not unique to hospital practice and family doctors have also been shown to contribute.⁵

A hospital "antacid policy" would be helpful, in which the judicious use of gastric acid suppressant treatment (not limited to PPIs) is advised. Consideration could also be given to withholding them while patients receive broad spectrum antibiotics. Audits and research should

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be conducted to identify the length of time the PPIs should be prescribed for an adequate effect. Patients should be advised of lifestyle measures, which have been well established to help in

many situations of excessive acid production.

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Competing interests: None declared.

- 1 Forgacs I, Loganayagam A. Overprescribing proton pump inhibitors. *BMJ* 2008;336:2-3. (5 January.)
- 2 Jump RL, Pultz MJ, Donskey CJ. Vegetative Clostridium difficile survives in room air on moist surfaces and in gastric contents with reduced acidity: a potential mechanism to explain the association between proton pump inhibitors and C. difficile-associated diarrhoea? Antimicrob Agents Chemother 2007;51:2883-7.
- 3 Grube RR, May DB. Stress ulcer prophylaxis in hospitalized patients not in intensive care units. Am J Health Syst Pharm 2007;64:1396-400.
- 4 Wohlt PD, Hansen LA, Fish JT. Inappropriate continuation of stress ulcer prophylactic therapy after discharge. Ann Pharmacother 2007;41:1611-6.
- 5 Scagliarini R, Magnani E, Pratico A, Bocchini R, Sambo P, Pazzi P. Inadequate use of acid-suppressive therapy in hospitalized patients and its implications for general practice. *Dig Dis Sci* 2005;50:2307-11.

REDUCING HOSPITAL ADMISSIONS

Apply psychology and education

I am a full time, out of hours general practitioner. I admit patients to hospital for two reasons.¹ Firstly, if my top differential diagnosis has a illness trajectory that might result in the patient coming to harm if he or she is not admitted. Secondly, if the functional state of the patient is such that nursing care is required. The decision to admit is made by me with all my failings and lack of knowledge and experience. One GP's absolute admission is another's telephone advice.

Much could be done to reduce admissions if all parties continued to reflect on all admissions. I follow up many of my admissions but usually have to ring the patient and the relatives. Getting information from hospitals is difficult, and they sometimes even refuse on the basis of confidentiality. If admitting GPs regularly had constructive feedback of admissions, including events after admissions and outcomes, then perhaps they would admit fewer patients or even change the timing of admissions. More case driven education could transform admissions. Local databases of admitting reasons (rather than diagnoses) and outcomes could be established and continual local research be done. This in turn could be used to back up all parties if things went wrong. Perhaps we need to blur the line between primary and secondary

care, and maybe urgent care (primary care) doctors need to work on admitting units.

Up to 10% of inpatients may have an adverse event while in care. At the moment, the iatrogenic harm of hospitals is rarely used as a reason not to admit, but when the decision is marginal this could further affect admission rates, especially in elderly patients.

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Competing interests: None declared.

1 Purdy S, Griffin T. Reducing hospital admissions. *BMJ* 2008;336:4-5. (5 January.)

DOCTORS AND THE DRUG INDUSTRY

Sophisticated misguidance

I am being bombarded and almost buried by an avalanche of personal, postal, electronic, and cyber communications regarding attentiondeficit/hyperactivity disorder (ADHD).¹ The scenario depicts a catastrophe of great magnitude, which guys like me could avert: "The uneducated need be educated and the unmotivated need be motivated."

Free continuing education credits (in the United States, these are required to maintain the licence to practise), dinners at fancy restaurants ("Your guests are welcome"), subscriptions to journals, etc, are offered. Sophisticated marketing techniques of the billion dollar pharmaceutical industry are carefully at work. They are in the barely decipherable small print.

After absorbing all the high powered presentations my conclusion is that ADHD=BS. Amarasinghe A W Amarasinghe consultant psychiatrist, 102 Bayberry Hills, McDonough, GA 30253-4005, USA amare1@pol.net

Competing interests: None declared.

1 Godlee F. Doctors and the drug industry. Editor's choice. *BMJ* 2008;336. (5 January.) doi:10.1136/ bmj.39444.472708.47

DIAGNOSING VIRAL MENINGITIS

Other important diagnoses must be excluded

The crucial aspect in viral meningitis is to consider non-viral causes of aseptic meningitis and is not mentioned in the review by Logan and MacMahon.¹ Of these, tuberculous meningitis and partly treated bacterial meningitis are most relevant. There are many others—for example, leptospirosis, drug related meningitis, and parameningeal brain abscess—presenting as aseptic meningitis before focal signs have developed. The findings from cerebrospinal fluid in all these conditions can be similar, even identical, to those found in viral meningitis. The authors mention various advantages in making a positive viral identification. Its real importance is in helping to exclude these nonviral illnesses. Many of them carry a serious prognosis and require immediate treatment. Harold P Lambert retired professor of infectious diseases, London SW14 7AN

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Competing interests: None declared.

1 Logan SAE, MacMahon E. Viral meningitis. *BMJ* 2008;336:36-40. (5 January.)

BOWEL PREPARATION

Give it up

It is easy to get sucked into a commentator's alleged expertise and ignore the evidence. In the summary of the *Lancet* article in Short cuts, you finish with, and therefore apparently sanction, the commentator's reluctance to give up the aesthetic of a clean colon,¹ contradicting not just the analyses in the accompanying article but also a much more thorough Cochrane systematic review (it must be summarised in *BMJ Clinical Evidence* too?) on this topic, which showed much the same results from nine previously published trials.²

The evidence against mechanical bowel cleansing is pretty overwhelming, and yet we colorectal surgeons are finding it very difficult to give up. Please don't make it harder.

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Competing interests: None declared.

- 1 Short cuts. All you need to read in the other general journals. *BMJ* 2008;336:16-7. (5 January.)
- 2 Guenaga KF, Matos D, Castro AA, Atallah AN, Wille-Jørgensen P. Mechanical bowel preparation for elective colorectal surgery. *Cochrane Database Syst Rev* 2005;(1):CD001544.

γ -HYDROXYBUTYRATE POISONING

Poisoning from toy beads

We report a case of γ -hydroxybutyrate poisoning in a child from ingestion of toy beads.

A 7 year old girl presented to our emergency department with an acute life threatening hypoxic event after swallowing Bindeez toy beads given to her as a Christmas present. Paramedics found her with a reduced level of consciousness, and she had a respiratory arrest requiring bag and mask ventilation. On arrival at hospital, she had critical bradycardia requiring cardiopulmonary resuscitation. Initial concerns were that she may have choked on the beads. However, after intubation, fibreoptic endoscopy to the carina did not visualise any beads. She did not require high ventilatory pressures and had good chest movement bilaterally. The child was retrieved by the local paediatric intensive care team, who extubated her less than 24 hours later. She was then able to tell us that, thinking they were sweets, she had eaten approximately 80 beads, and they had tasted of marzipan.

Toxicology review showed that the beads that were found in her mouth at the scene were coated in 1,4-butanediol, which is metabolised to γ -hydroxybutyric acid (GHB), a potent sedative and anaesthetic agent.¹ Bindeez toy beads—"Make, spray and they stay! Magic beads that join together with water"—were internationally recalled after two similar cases were reported in Australia in November 2007.²³ However, they are still advertised on toy shop websites for purchase in the United Kingdom. When we drew this to the attention of the UK distributor, it stated that it was not aware of this and would be launching a further investigation.

All paediatricians, emergency department doctors, anaesthetists, and general practitioners are aware of this extremely serious public health hazard. GHB intoxication from toys should be considered in all children presenting with depressed level of consciousness. Jane L M Runnacles paediatric SpR, John Stroobant consultant paediatrician,

University Hospital Lewisham, London SE13 6LH j_runnacles@hotmail.com

Competing interests: None declared

- Stell IM, Ryan JM. (gamma)-Hydroxybutyrate is a new recreational drug that may lead to loss of consciousness. *BMJ* 1996;313:424. www.bmj.com/ cgi/content/full/313/7054/424/a
- 2 Gunja N, Doyle E, Carpenter K, et al. gamma-Hydroxybutyrate poisoning from toy beads. *Med J Aust* 2007 Nov 19, epub ahead of print.
- 3 Elliott V. Bindeez toys recalled over drug concern. Times 2007, Nov 9. www.timesonline.co.uk/tol/news/uk/ article2842698.ece

NEW GENERATION COMPUTER GAMES

Watch out for Wii shoulder

In the first clinic after Christmas we encountered a child who was complaining of tiredness and a sore shoulder, having been inactive over the past three years through illness. He had been given a new generation computer game for Christmas, and having checked everything else, we diagnosed Wii shoulder.

Anyone who has played interactive games on Wii sport will relate to this shoulder pain in muscles that have not been used for a long time.¹ Within a day the discomfort wears off, as with exercise after a period of inactivity.

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1 Graves L, Stratton G, Ridgers ND, Cable NT. Comparison of energy expenditure in adolescents when playing new generation and sedentary computer games: cross sectional study. *BMJ* 2007;335:1282-4. (22 December.)