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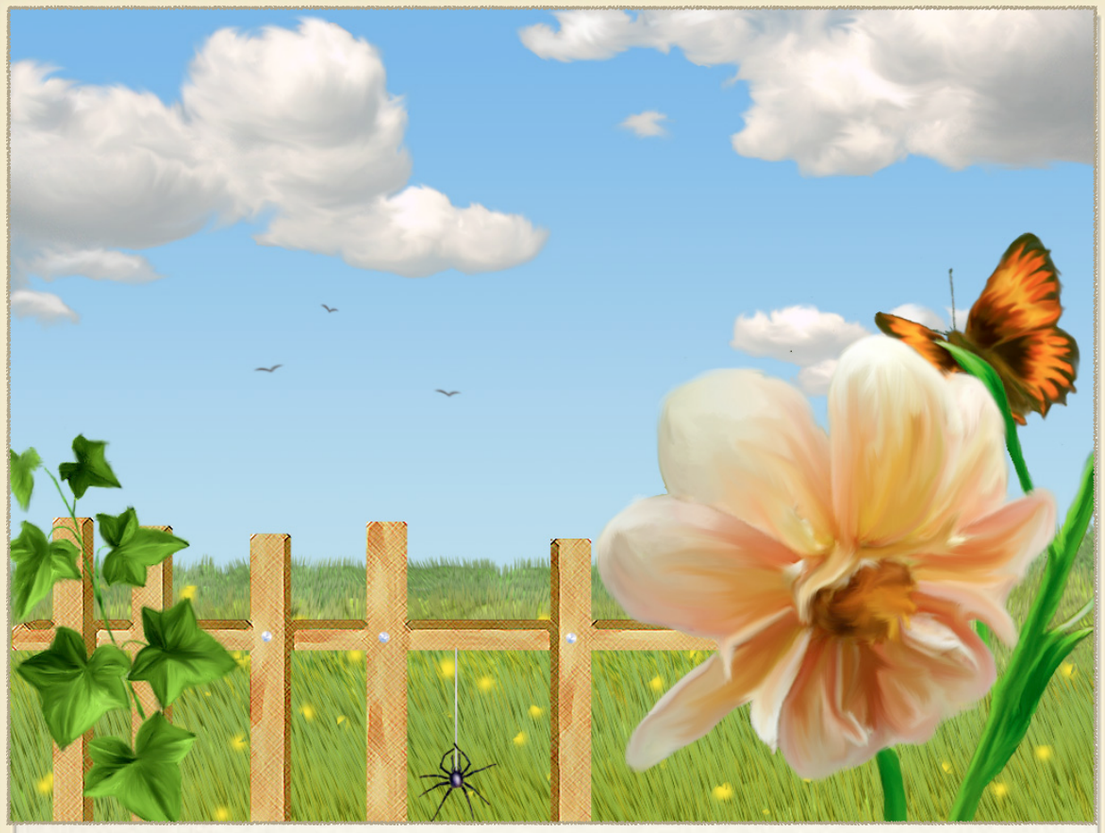


CONTENTS

Editorial

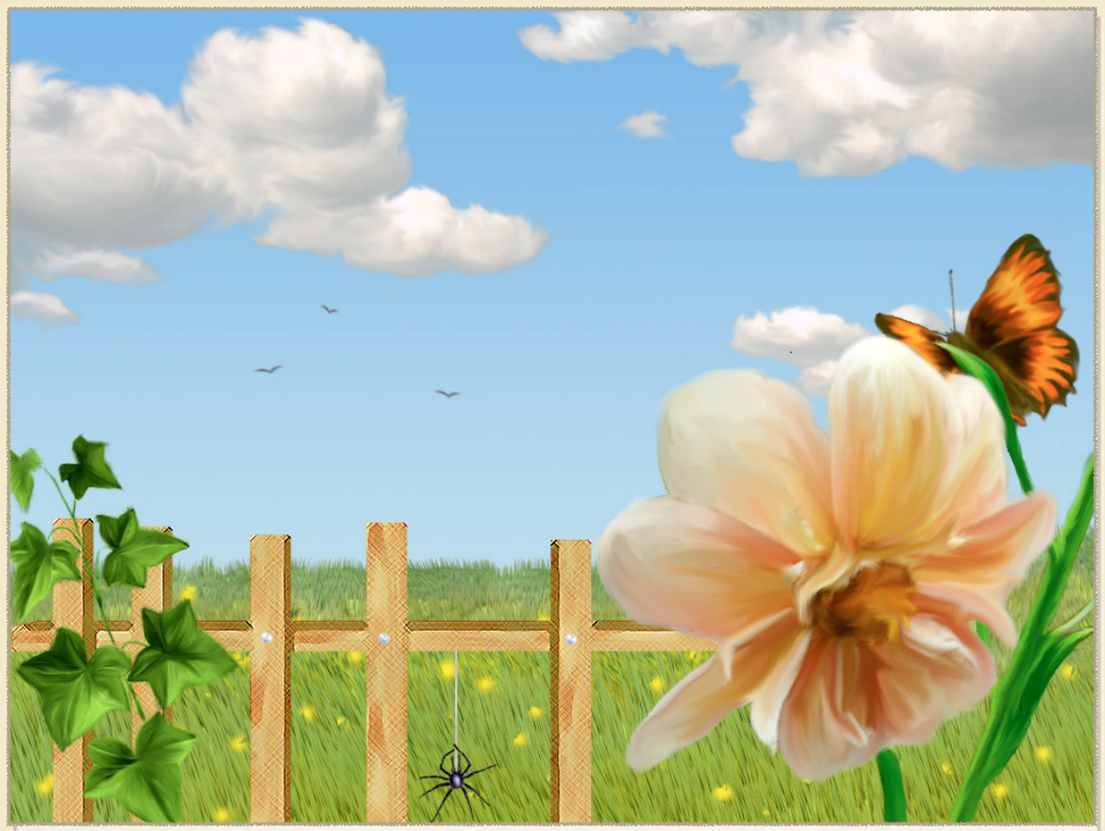
Welcome to the the Summer Issue of the JPCSG.

I hope you like the idyllic picture on the cover depicting those halcyon days of summer we all remember so well. So as you read this in the pouring rain, take comfort in knowing that winter is soon upon us.

The life of an editor is not an easy one and I struggled to think of something that would tie all these articles together. What big event could be happening in the UK that I could use as a way of splicing together a set of disparate articles. And then I thought! Yes, the Olym....(not sure since we are not sponsors I am allowed to use that word). So these articles all have a running theme of sport and the wider world. (Philosophy-sport-Greece (home of the Olympics)- reflex hyperacidity....erm. My sincere thanks to all our contributors.

Once London calms down, after the you know what, it has to gird its loins and prepare for the next highlight of the year. Even now, the Mayor is setting aside special lanes for the Sinclair C5s of the committee. Yes, October the 19th is the date for our combined AGM and Annual Scientific meeting. I have enclosed a outline programme but get your names down as soon as possible and don't forget, it’s free!

John O’Malley, Editor.



INTRODUCTION

- *The tenuous linking of the articles in this issue reach breaking point early with our first article. Well, Greece had something to do with philosophy and the Olympics and philosophers, such as Socrates, were famous for their prowess on the asymmetrical bars (note to self, see if that is right).*

Iain has kindly provided this article on the minimum pricing of alcohol. Would it work and, more importantly, should it be allowed to work?

SECTION 2

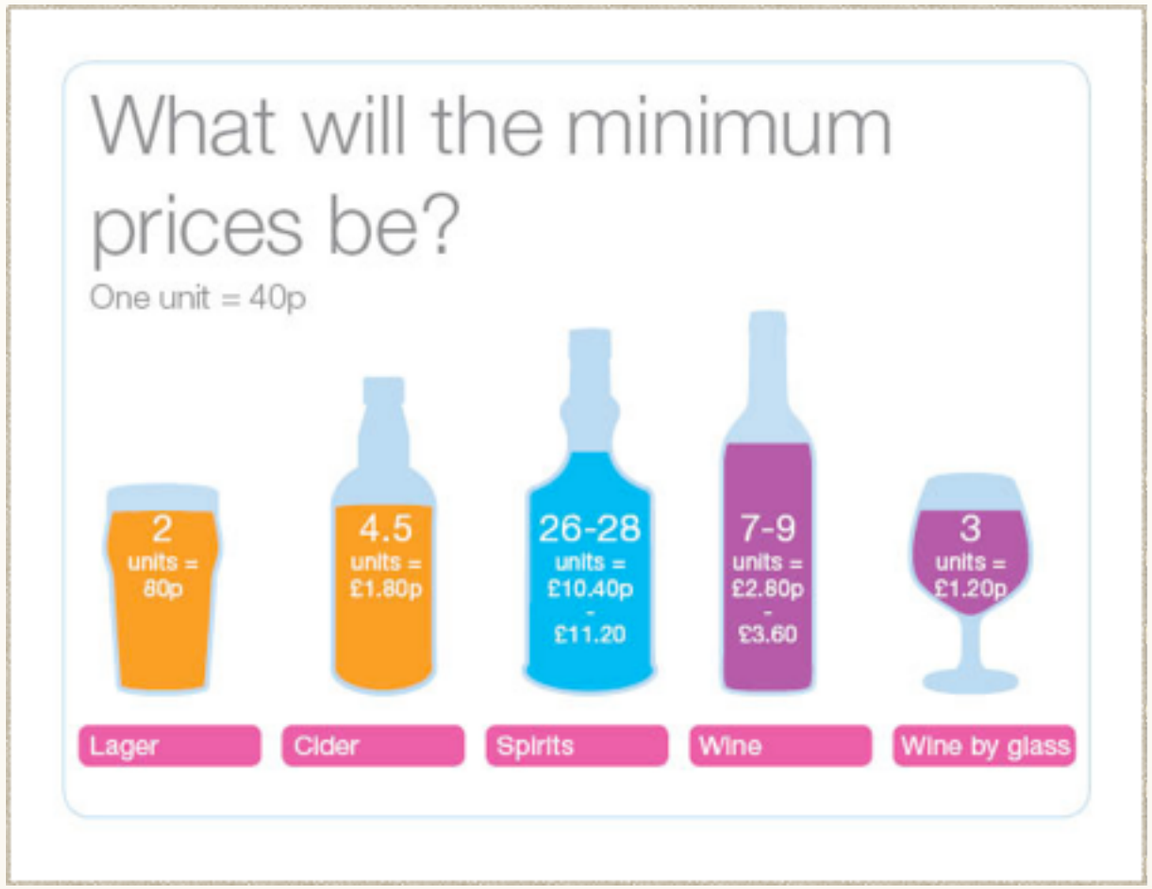
Minimum price per unit; the answer to the UK alcohol problem?

Iain Brassington, Lecturer in Bioethics at the Centre for Social Ethics and Policy, University of Manchester.

One could be forgiven for thinking that setting a minimum price per unit (hereafter, "MPU") for alcoholic drinks is an idea whose time has come: the Home Office website declares that it intends to implement such a policy, and news coverage in March 2012 indicated that it is considering an MPU of around 40p. The proposal was not universally welcomed, but it got a pretty good reception in the main. More recently, the Scottish Parliament passed a proposal to set a 50p MPU.

Since alcohol consumption can be harmful in its own right, and can lead to other behaviours that are harmful (such as violence or drink-driving); since those harms could probably be reduced if alcohol consumption were lower; and since increasing the price of a commodity is likely to reduce demand (hence consumption), it does not take much to generate a prima facie strong argument in favour of an MPU policy that could be

defended in terms of protecting and promoting public health and the public good. Having said that, and though a policy designed to cut consumption must set the MPU at a level high enough to be noticeable, it ought not to set it too high. There is nothing fundamentally wrong with alcohol, after all: the aim of the policy is not (and ought not to be) to stop people drinking, but to stop them drinking too much. Having an MPU set at a level that makes drinking prohibitively expensive would be overkill.



But there's a number of problems with the idea aside from deciding where to pitch the price per unit. Not the least of them is that an MPU is highly regressive.

A peculiarity of an MPU policy is that, if implemented, the price of the cheapest drink will rise, while the price of the stuff that's already more expensive may very well not rise at all – or not by so much – since consumers will already be paying more than the minimum price per unit. For example, a four-pack of reassuringly expensive Belgian beer costs around £5 in my supermarket; at 2.7 units per can, this price would go up by 40p, or 8%, under a 50p MPU regime. (A bottle of the even more expensive Belgian beer that comes in small and oddly-shaped bottles, or a bottle of half-decent Shiraz, would not be altered at all.) By contrast, someone wanting to buy a four-pack of supermarket own-brand lager of comparable strength that normally retails for about £4 would also find the price increased to £5.40 – a rise of 35%. And this is potentially unjust, because it means that the policy's impact is not evenly spread among the population. Rather, the poorest feel it most: after all, it's likely that the person buying the cheaper beer and facing the steepest rise would be less well-off to begin with. The Falkirk MP Eric Joyce described a minimum pricing policy as being "entirely directed at the least well off"; this probably isn't true, but it is the poorest who would be most likely to bear the brunt.

Considerations like this play a large part in Tom Walker's argument that we should not be considering an MPU policy. "If we are not prepared to impose price rises on better-off moderate drinkers as a way to reduce the harm drinkers pose to themselves," he says, "then it would be unfair to impose those price rises only on the less well off in order to achieve the same end." He concludes that

[i]n raising only the price of the cheapest drinks minimum price policies target those already most disadvantaged in society and expect them to pay a price to reduce harm even though most drinkers in this category are no more likely to cause harm than drinkers in general. To the extent that we think we need a policy to reduce these harms, therefore, in the interest of fairness we should adopt one of [the available] alternatives. That is, even in those situations where we would be justified in taking steps to reduce the amount people drink, a policy of setting a minimum price per unit of alcohol would not be justified.

Walker's argument certainly bears consideration.

However, we might imagine that some would be willing to bite the bullet when faced with this kind of claim. After all, an MPU is not prohibitionist, and no-one is prevented from spending money on alcohol if they want. Since alcoholic drinks are not required for a tolerably good life, there will be little in the way of a positive moral right to access them. (A brewer did manage to convince a Lithuanian court to declare a strike illegal on the grounds that it was providing an essential service – but we can probably regard that as a legal oddity rather than grounds for a compelling moral counterargument.). On this basis, we might think finding them out of one's price-range more unfortunate than unjust, rather as it's unfortunate rather than unjust that my neighbour can afford a new car and I can't.

Furthermore, the social cost of alcohol is demographically blind: a wrecked liver is a wrecked liver, a drunk driver is a drunk driver, and the propensity to relieve oneself in a bus-stop is not particularly strongly associated with any one class. On this basis, it might be jarring if wealthy people face less of a barrier to liver-wrecking behaviour than poor people; but, from a public health perspective, having some such behaviour unchecked is better than having it all unchecked.

(A small caveat here is that buying a large amount of alcohol is not a reliable predictor of social cost. Imagine that someone buys a crate of cheap strong cider because he's invited some friends around for a barbecue, would like to be able to offer them a drink, but can't afford to buy anything more expensive. There's no reason to suppose that this purchase will impose a noticeably elevated social cost, since no-one would consume more than a couple of units each, all else being equal – and so no significantly raised health risk or social cost would be generated. If an MPU is meant to compensate for social costs, we have to admit that it doesn't discriminate all that well between those whose purchasing patterns are socially costly and those whose aren't. Purchasing is an unreliable predictor of consuming.)

Walker is more sympathetic to the idea of an across-the-board price rise than an MPU; this would help eliminate the regressivity problem. Such a policy could be imposed by an increase in duty. There's a number of reasons why it might be resisted, though. For one thing, it's likely to be inflationary in a way that a MPU isn't, because most of the on-trade, and a good portion of the off-trade, is at a price

above that demanded by most suggested MPsU; and this may well be politically unpopular, simply for the reason that more people will feel the effect of the policy. Of course, the whole point is that they feel it – but the more people are affected, the trickier the policy would be politically.

But there's another argument against any policy aimed to reduce alcohol consumption by increasing price across the board, which is that it's unwarranted interference in the decisions of individuals. The newspapers may complain about the "nanny state", and more academic commentators may complain about government attempts to manipulate us for our own good being paternalistic or infantilising; but, in essence, the complaint is the same: it is not the place of the state to prod the people into being "wise" in respect of their own health, and it doesn't matter whether that prodding is subtle or blatant.

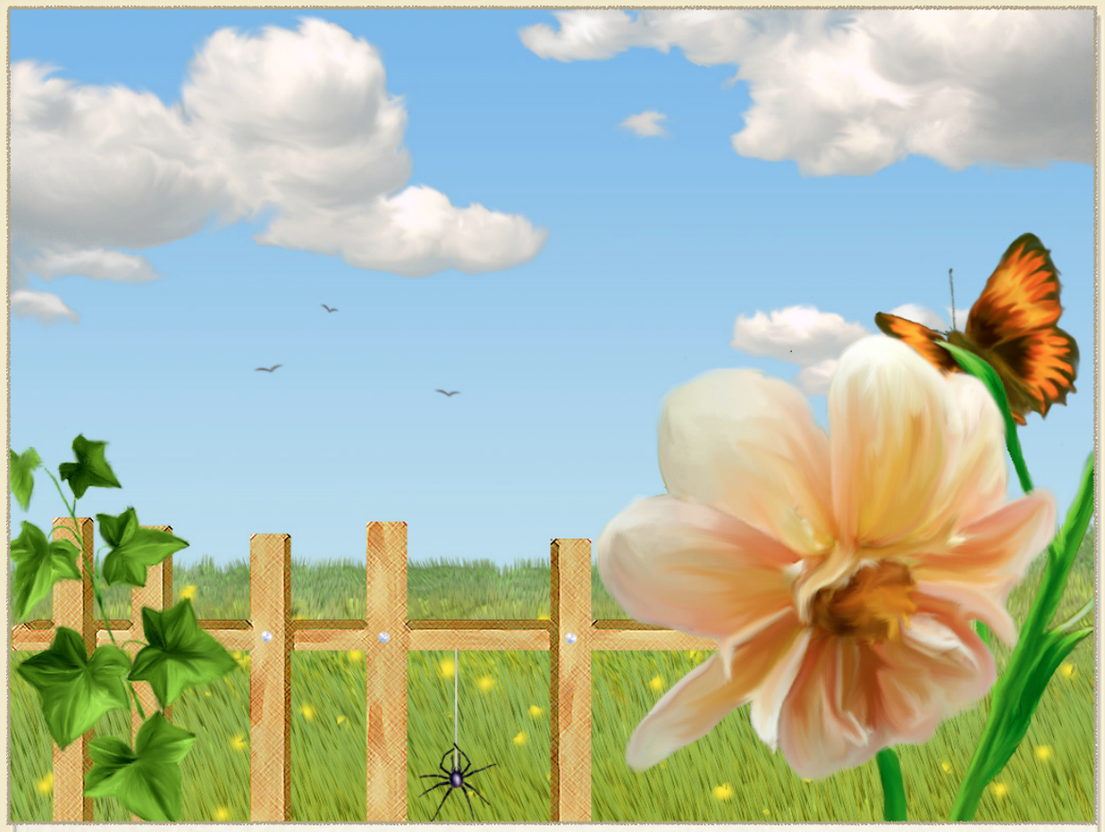
However, the response to this is simply to question whether such interventions are always a bad thing. This can be done in a couple of ways. The first is to admit that, though terms like "respect for autonomy" have become something of a mantra among many people working in health and bioethics, it's not a given that individual autonomy really is trumps. There is a line of thought in public health ethics, for example, that is sympathetic to the claim that the "rules" of public health ethics are different from those of other areas of ethics, simply because public health ethics takes the community as its concern rather than individuals; and this is sometimes taken to mean that individual autonomy does not necessarily come out on top. And if it doesn't always come out on top, we can't assume a priori that it will come out on top in this case.

I have to admit that I don't agree with the idea that different aspects of life have different moral codes that apply to them. (At the very least, such claims strike me as metaphysically and epistemologically very weird indeed.) I think that ethics is ethics. So even though some public health ethicists don't subscribe uncritically to the "autonomy as trumps" doctrine espoused by people like Raanan Gillon, that point can only take us so far. Having said that, they might be right to suspect that autonomy is not trumps; it's just that it might not be trumps at all, rather than just in respect of public health. That being the case, in order to make a claim that the government should not intervene to nudge us towards wise choices in respect of alcohol, it's not enough simply to stamp your foot and say, "Yes, but AUTONOMY". The repetition of a mantra won't, after all, demonstrate that it's the right mantra to repeat. It might be that we should accept – or even embrace – the idea of at least some government intervention into private lives, perhaps on the grounds that people are liable simply to make poor choices now and again. And even if governments oughtn't to intervene, there's no harm done by being forced to argue the case.

But, actually, the minimum-pricing policy doesn't have to be defended on this sort of territory; it could also be defended on the grounds that not having a minimum price is – our barbecue host notwithstanding – simply ignoring the true

cost of alcohol. Human activities have social costs that aren't always reflected in the price we pay at the till. The costs of heavy drinking are manifested in terms of the burden on the NHS, the burden on the police, absenteeism, and so on – and, as I've already hinted, these costs are the same irrespective of the wealth of the drinker. That being the case, there could be a way for governments to say that their intervention simply corrects for market failure. On this account, it wouldn't necessarily be true that such intervention is an unwarranted infringement of individual liberty – if, indeed, it is an infringement of liberty at all. Rather, we'd be saying that people can do what they want, as long as they pay the "true" cost. Quite possibly, arguing in this way would mean that we could sidestep debates about liberty and paternalism; the libertarian counterargument would risk collapsing into a claim about protecting the liberty not to pay the full cost for a good or service.

I don't begrudge anyone a glass of wine; I'm happy to admit that a good life is one that involves getting squiffy every so often. But booze does have its costs, and it's reasonable to want to minimise or offset them. The challenge is to do that in a way that's just – and if we can't manage perfect justice, at least to minimise injustice.



INTRODUCTION

- *In this summer of the Olympics, many will be thinking of pounding the streets , training for 10k, half and even full marathons. But how will their gut fare?*

  As I explain in this article, the gastrointestinal system can react badly to extremes of exercise.

Sport and the Gut

Why exercise may not be so good (for your gut at least).

John O'Malley, Hospital Practitioner in Gastroenterology, Wirral

With the Olympics in London this year, no doubt primary care will see a surge of well meaning individuals wanting to prove that they too can do the 100 metres in less than 10 seconds and not worried by their lack of fitness or even age. So, expect a deluge of sore knees, sprained ankles and dodgy backs in the next few weeks.

My only experience of committed (and I use that word carefully) exercise is in connection with my wife (and son as in the above shot from the Manchester 10k in 2006) who runs marathons. The fact that one runner developed ischaemic colitis during one of her marathons got me thinking about what effects exercise can have on the gut [1]. The patient noted in this paper developed ischaemic colitis affecting the caecum and ascending colon, which led to peritonitis within 48 hours an eventual right hemicolectomy.

The problem is that when we think of exercise and the gut, we often look at it at the extremes such as in professional athletes but as more and more patients get involved in marathons and triathlons for example, it means that primary care will come across more gut related disorders. It is also a reminder to ask about hobbies and sports when seeing patients with gut problems.

Although, numbers of GI problems are often much higher in elite endurance athletes (70%) , there are several reports of day to day runners and others who also experience problems (25-50%)[2] [3]. The effects are often related in runners to dehydration and blood changes but reflux can also be a problem with greater problems with reflux seen in both severity and length of time the more one exercises[4]. The type of exercise is also important with runners having more problems with lower GI symptoms than cyclists who tend to get upper and lower GI problems with triathletes oscillating between the two modalities depending on their training regimes[5]. Heartburn is especially common in those participating in weightlifting which is not surprising in view of the high intra-abdominal pressures that exist during lifting[6].

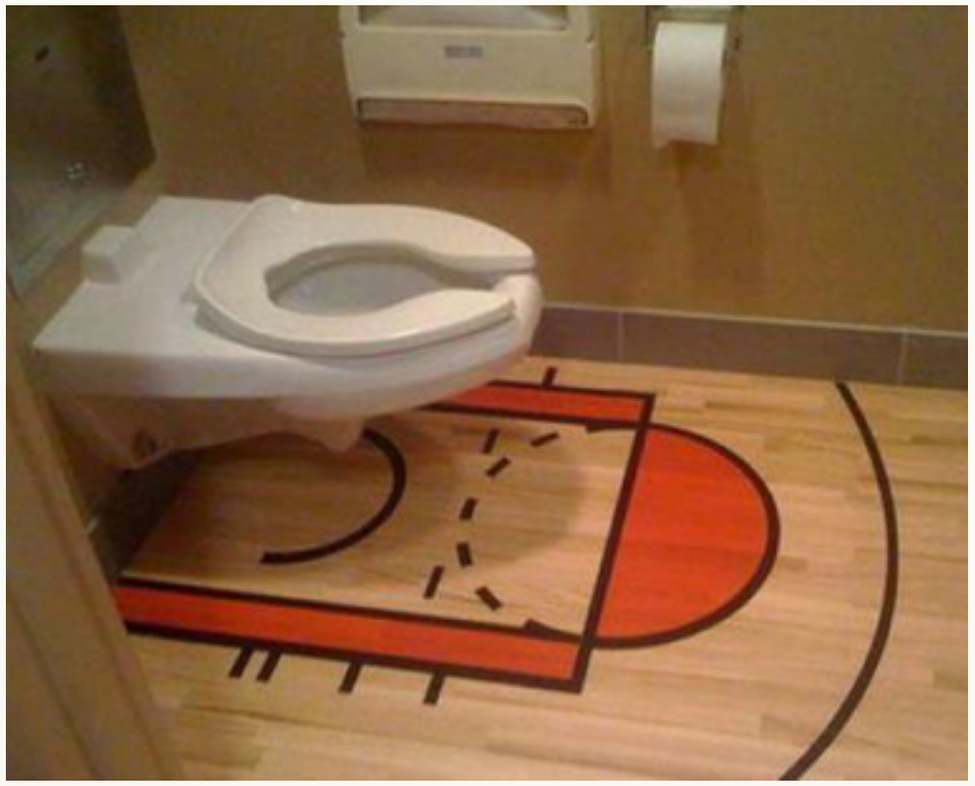
With so many different sports affected, is there a unifying cause for the effect exercise has on the gut? The factors involved are different in emphasis with each sport but can be classed into three main areas, mechanical, neuroendocrine and blood flow.

The mechanical aspects can be obvious in sports like weightlifting but even in cycling the effects of posture on the intra-abdominal pressures can be high especially when combined with the strain of uphill races. The effect of repeated trauma to internal organs in running, for example can also be a factor[7]. This can even lead to mucosal changes which can be aggravated by neuroendocrine changes. During heavy exercise, there is a marked increase in sympathetic tone and a decrease in parasympathetic tone and this along with the secretion of vasoactive compounds can have deleterious affects on the mucosa leading to ulceration[8].
Major problems can be a result of the competing demands for oxygen and thus blood flow in exercise. As seen in the case mentioned in my preamble, the diversion of blood away from the splanchnic circulation to other areas can lead to ischaemia which can further lead to increased permeability and endotoxaemia. Even post exercise , this diversion and the subsequent reperfusion can cause severe problems such as bloody diarrhoea for some athletes[9]. This diversion has been

measured at upto 80% in some athletes[10]. Liquid meals before exercise seem to ameliorate this effect.
So what effects do the athletes feel? Nausea, vomiting, abdominal pain and bloody diarrhoea are the commonest problems seen[11]. Why are the problems often more pronounced afterwards? As we mentioned before, after the diversion comes a massive reperfusion . This then leads to the problem of 'leaky mucosa' which can then allow substances such as enzymes food antigens and bile into the local circulation and even further, causing both systemic and local problems[12].
The commonest upper GI symptom in athletes is GORD. It increases with intensity and duration of exercise and is especially worse if you exercise after eating with the runners having three times the amount of reflux 45 minutes after a meal than when they fast and then run[13]. As we said before, any sport where the intra-abdominal pressure is raised on a regular basis will contribute to reflux but exercise also affects motility with transient lower oesophageal sphincter relaxation and decreased oesophageal clearance all contributing to the reflux[14]. The change in blood flow also affects gastric emptying further aggravating reflux.
What can help before the use of medication? It is often a good idea to advise patients who exercise and have reflux to avoid eating solid food before exercise together with high carbohydrate drinks and to adopt a regime of liquid meals with low carbohydrate and plenty of hydration. Drinks containing a maximum of 10% glucose are considered the safest to take if , as in marathons, carbohydrate intake is needed[15]. Large amounts of carbohydrate can be self defeating as there are studies showing improved performance in Ironman competitions but such athletes also have more nausea and flatulence[16]There is also increasing evidence that probiotics can help to maintain gastrointestinal immunity in endurance athletes and this effect increases with an increasing training load[17],[18].
It has been well known that athletes are at increased risk of acid related problems such as gastritis and ulcers[19]. The cause of this is not as simple as once thought and is not stress related. The repeated mechanical trauma and changes in blood flow can all affect the mucosa and ulcers are thus very common in endurance runners especially with Choi finding at least one GI mucosal lesion in 22 out of 24 professional long distance runners[20]. All of these affects are treated and prevented by use of PPIs suggesting a role of increased gastric acid secretion. This is often aggravated by the use of aspirin and NSAIDs for pain relief in athletes.
Even though most of us would rather have their eyes poked out with a stick than attempt a marathon, we can all relate to the phenomenon of the 'stitch'. Exercise related transient abdominal pain or ETAP, to give it its proper name, is the widely experienced pain that is sharp or cramping and is sited on either side of the abdomen radiating to the shoulder that comes on with exercise and resolves when you stop exercising. Athletes often see it when they start a new training routine and continued training often improves matters as noted by the fact that well trained runners get ETAP far less often than others[21]. It is often associated with belching and an urge to defaecate. But why does it happen? The search for a cause continues and no-one really knows. Theories are varied and

include lack of diaphragmatic blood flow, stress on sub-diaphragmatic ligaments and irritation of the peritoneum. How is it best helped? Many trainers will suggest running through the pain for the reasons cited above and others talk of pursing the lips whilst running.

This overview only skims the surface of what we know about exercise and the gut but the recent Olympics have shown that the athletes put a great deal of importance of the effects exercise can have on the gut as shown by the fact that Chris Hoy impressed upon the architects of the Velodrome not only the need for a good track but also trackside toilets for the cyclists[22].



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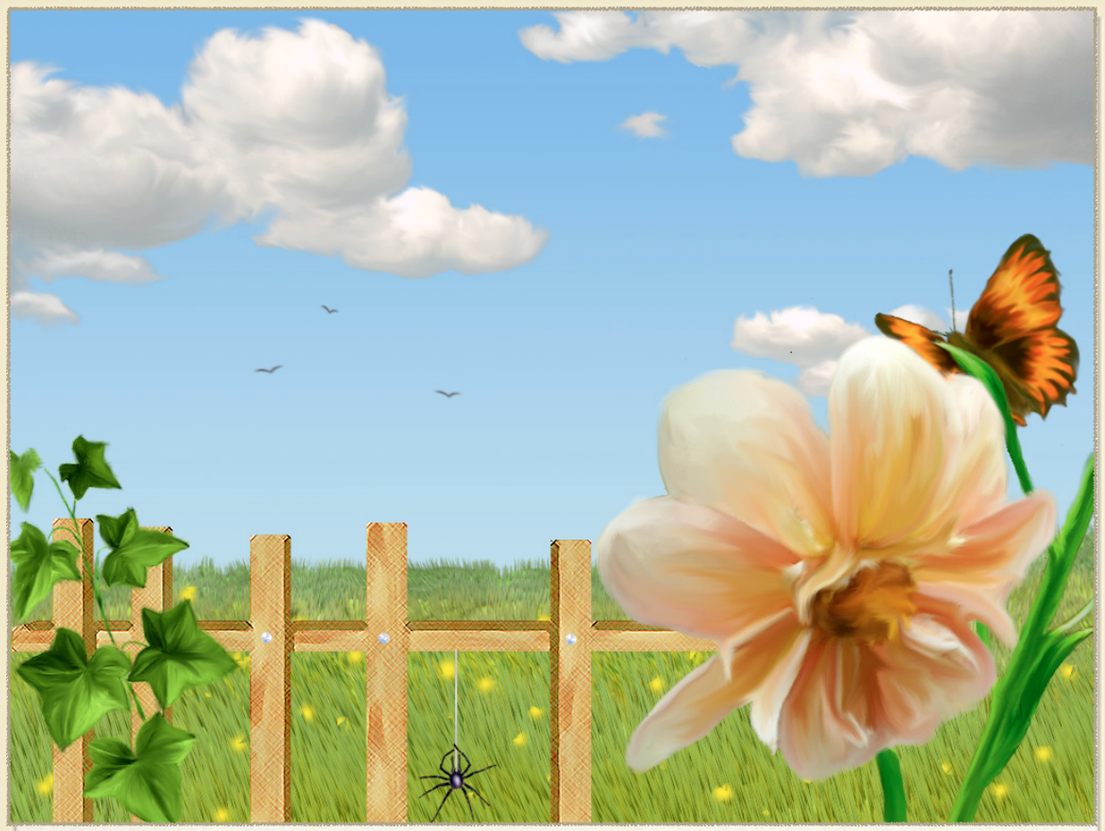

INTRODUCTION

- *We are indeed honoured to have Drs Lionis and Anastasiou writing in our journal. Greece has been in the news for all the wrong reasons lately but what challenges face our primary care colleagues in gastroenterology? Christos and Foteini outline the state of primary care gastroenterology in Greece and discuss how the increasing demands on primary care involvement are leading to similar rising needs for education.*

SECTION 4

Gastroenterology in Primary Care in Greece: a short report

Christos Lionis MD PhD FRCGP and Foteini Anastasiou MDPhD

Background

Primary care in Greece-The burden of GI problems in Greece

At a time when Europe is overwhelmed with uncertainty, many European countries have been negatively affected. Greece is struggling with a serious financial crisis that has a great impact on the populations' health, health care services and equity. Primary care reform is at the top of the

agenda of the Greek political parties but primary health care (PHC) is still lacking coordination and integration (Lionis, et al, 2009). In a similar direction, despite the efforts of the Greek Association of General Practice (ELEGEIA, http://www.elegeia.gr) the discipline is still seeking recognition at both an academic and clinical level (Lionis, et al, 2004).

Although Greek General Practitioners (GPs) are keen to address clinical issues and GI problems represent frequent reasons for visits to primary care settings, there is still room for quality improvement in terms of GI disorders management. GPs have not received specific training in GI disorders, thus there is a risk of misdiagnosis. This paper outlines some key issues relevant to Primary Care Gastroenterology in Greece with a focus on the capacity of Greek GPs, their barriers to providing effective care and the current challenges of research in this field.

The Greek health care system: the case of gastrointestinal diseases

In Greece, PHC is provided in rural settings by approximately 200 health centres serving all regions of the country. In urban areas, patients have the option to visit outpatient department of public hospitals, a network of practices provided by the largest social security institution (IKA), or private practices that are affiliated with the national organization of health care services provision (http://www.eopyy.gov.gr). The majority of primary care providers in rural settings are GPs, while in urban areas there is a mix of GPs, internists and many other specialists. Many patients, mostly in the urban areas, seeking medical care for their GI symptoms and disorders tend to directly visit private gastroenterologists, usually without the mediation of a GP.

Barriers and limitations with regard to effective care of GI patients: a focus on training and diagnostic capacity

The lack of focus on GI diseases and conditions during vocational training, indicates a necessity for continuous professional development courses. Although there are joint efforts to enhance and improve both knowledge and clinical skills of Greek GPs through seminars, and round tables during the yearly national ELEGEIA conferences, more energy is required to enhance these efforts and make them more effective. In Greece, GPs are unable to perform endoscopies since they lack the necessary training. Thus, a variety in diagnostic capability can be expected. The use of diagnostic criteria seems to be low and at the same time the relevance of the latter to the Greek PHC setting is questionable [Anastasiou, et al, 2008]. Near-patient testing as for Helicobacter pylori has been a recommendation in general practice for many years [Jones, et al, 1997] either as medical devices for performing the Urea Breath Test or as tests such as the fecal immunochemical for the early detection of colorectal cancer are not frequently available at the GPs practices mainly in the public health. However, diagnostic capacity in the Greek primary care setting appears to remain low, and this fact has been documented even prior to the recession period [Oikonomidou, at al, 2010]. The lack of electronic infrastructure and the use of electronic patient records in many PHC practices, mostly in rural settings, presents an additional barrier for achieving continuity and quality of care.

Education and awareness of GI problems are not the only barriers encountered by Greek GPs in their everyday practice. As mentioned above, it was evident even before the economical crisis that Greek rural practices are affected by limited resources [Oiconomidou, et al, 2010]. The current situation is expected to worsen as the workload of PHC centres and GP practices is overwhelmed due to flowed with patients experiencing health care access problems, and because of a shift of patients from the private sector towards the national health care services. Thus, current problems in implementing effective care of GI diseases in PHC in Greece spreads far beyond the personal GPs and patients expectations and quality standards.

Issues of quality and safety

The use of diagnostic criteria and general guidelines for GI diseases and conditions in Greece in daily practice also seems to be limited [Anastasiou, et al, 2008] [Lionis, et al, 2005]. This fact together with the lacking diagnostic capacity especially in the public sector raises certain concerns about the quality of care and safety of patients with GI symptoms and disorders. The low patients' compliance to the GPs' referral to a prompt upper GI endoscopy [Oikonomidou, et al, 2011] is another issue that requires additional research and

attention. There are limited medical audit studies and research exploring the effectiveness of GPs interventions on GI problems in Greece.

Research on gastrointestinal problems in primary care

In Greece, although gastrointestinal diseases have been extensively studied in tertiary health care, there are only scarce data in the primary care literature. Within the past years, some observational studies have been reported with the main aim to contribute to a better understanding of the burden of certain GI diseases in PHC in Greece, including viral hepatitis, dyspepsia and IBS.

Through such studies, the presence of the Hepatitis C Virus (HCV) in the adult population has been extensively studied in rural Crete and Greece. A seroepidemiological study of HCV in 15 PHC in rural Greece revealed statistically significant differences between areas with Crete holding the highest prevalence (4.8%) of anti-HCV [Lionis, et al, 2000]. The burden of hepatitis A, B and C has also been studied both in GP settings and in specific population groups. In a rural area, the prevalence of HBsAg was found to be very low, while that of anti-HCV very high [Lionis, et al, 1997]. In children, the prevalence of anti-HAV was very low together with the endemicity of HBV in contrast to other Greek areas [Lionis, et al, 1997]. The absence of hepatitis C markers in the child population, in contrast to the observed high prevalence of HCV-infected people of the adult population in the same rural area, raises questions regarding the possible sources of transmission of hepatitis C during the preceding years.

In a rural Greek setting, retrospectively, acute gastroenteritis was found to be the most common acute GI disease [Lionis, et al, 2005], while IBS and functional dyspepsia are common but seem to be underreported. In a mixed rural urban population, 15.7% reported gastrointestinal symptoms compatible with IBS [Katsinelos, et al, 2009]. Inflammatory bowel disease (IBD) has been extensively studied in Greece and especially in Crete where ulcerative colitis and Crohn's-disease are found to be common in the Heraklion country, with similar incidence rates as in Northern Europe [Manousos, et al, 1996(a); Manousos, et al, 1996(b); Koutroubakis,et al, 1999]. There are also limited data with regard to celiac disease in primary care (Roka, et al, 2007).

Translating observational research into clinical practice

Certain efforts that have been undertaken by the Clinic of Social and Family Medicine (http://www.fammed.uoc.gr/) at the Medical Faculty of the University of Crete (UoC) to add to the existing capacity and diagnostic tools. To that purpose, a team of Greek GPs affiliated with this academic department and members of ELEGEIA who have an interest in GI disorders have joined the European Society for Primary Care Gastroenterology (ESPCG). In addition, a number of PhD studies have been promoted at the UoC with a focus on functional GI diseases, dyspepsia and IBS. A requirement of these PhD studies is that students have to select a diagnostic tool, and translate and validate it into the Greek language. [Anastasiou, et al, 2006; Oikonomidou, et al, 2012, submitted].

Suggestions and conclusions

In a country with limited resources, where primary care is now invited to play a much more effective role in ensuring effective care of multi-morbidity and equity, the dissemination of practice guidelines and the investment in continuous professional training in GI disorders is a way forward into guaranteeing quality in primary care in Greece. This is an additional task for the UoC who together with ELEGEIA, ESPCG and RCGP is preparing a joint project to form and disseminate practice guidelines and recommendations for common GI morbidity.

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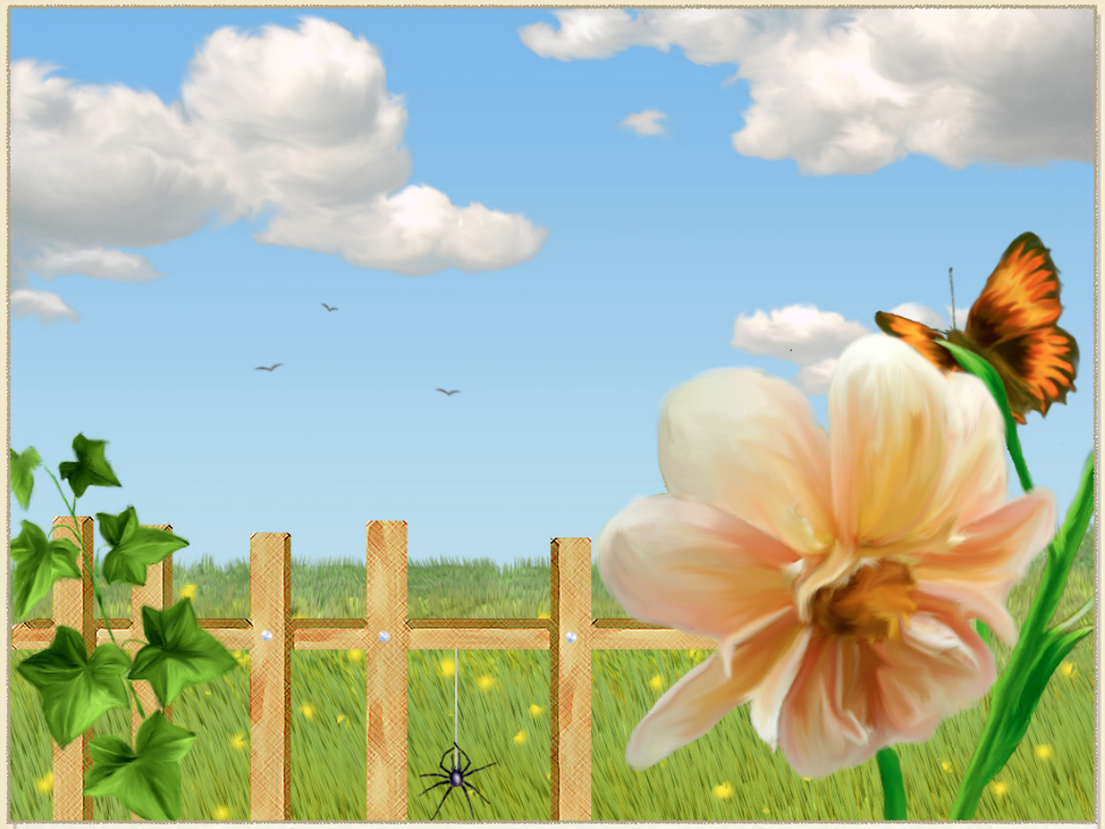

INTRODUCTION

- *The advent of Proton Pump Inhibitors has been revolutionary and it has meant many doctors under the age of 40 have never witnessed a vagotomy and pyloroplasty. But as with all revolutions, there is a cost. In this article I discuss the phenomenon of rebound hyperacidity which occurs when PPIs are abruptly stopped.*

Rebound hyperacidity

John O'Malley, Hospital Practitioner, Wirral

As open access gastroscopy services have expanded, it becomes more and more important that we are scoping people for the right reasons. Increasingly, I find in my clinic a large number of referrals for reflux problems in patient who are already on Proton Pump Inhibitors (PPIs) or as in this case below, have come off them and are now having problems again;

Please see this 25 year old man who takes a PPI for his reflux and is under excellent control. The problem is when he tries to stop it as he gets severe heartburn returning within days. Please can he have a gastroscopy to look for Barrett's oesophagus?

There is an old graph I remember from my pharmacology lectures which charts the popularity of drugs from their inception to their eventual use. Proton Pump inhibitors (PPI) have travelled the same path as many drugs. After years of

treating people with cimetidine and ranitidine, many physicians felt that things couldn't get any better. The advent of such drugs had started to put the use of surgical techniques to treat ulcers into the dustbin of history. But when PPIs were introduced it was obvious they belonged to a different class as they had far more potent acid suppressive effects. As their use exploded in the treatment of GORD and peptic ulcer disease so did the burden of their cost and many GPs, as I do, well remember PPIs being top of their list of most widely used and most expensive drugs. Worries also were being raised about the possible links with gastric cancer, a view that was over emphasised in the early 90s. With cost now plummeting, we have reached a stage where the individual cost of a month's prescription may be measured in pence but due to increasing numbers, the total costs remains high and may even , in some cases, be higher. Along with their increased use, further research has raised questions about the toxicity of PPIs and how their inappropriate use can lead to problems. Their use has now become so widespread and reflex in nature that in many cases patients (and their doctors, often) are unclear as to why they are on them. This overuse then leads to increased problems such as C. Difficile and problems getting people off the medication.

What the above case highlights is the increasing problems of rebound hyperacidity and how the lack of awareness of the problem is leading to overuse, cost implications and clinical issues. The fact that PPIs can cause such problems is not a new development . A similar effect was seen with H2 receptor antagonists but that was known to be of short duration with little clinical consequences unlike the effects of stopping PPIs which last longer and are far more severe. Certainly, the clinical benefits of PPIs are impressive but stopping PPIs has long been known to be difficult in both endoscopy positive and negative patients. Both the positive effect of treatment and the negative side of cessation mean that patients continue treatment long term when , in some cases, there is no need. Rebound hyperacidity gives the impression of symptomatic relapse when, in reality, it is a consequence of treatment. Thus, effective ways of managing the cessation of PPI therapy is becoming an important task for researchers.

Why does it happen? PPIs with their strong depressive effect on acid production and given long term can lead to marked hypergastrinaemia leading to enlarged oxyntic mucosa and associated enterochromaffin-like (ECL) cell hyperplasia which when the suppressive PPI influence is stopped, causes rebound hyperacidity. For this effect to take place, there is no need to be taking PPIs for long periods and studies have shown that rebound effects can occur after 4 to 8 weeks . Certainly we know it takes longer than 14 days and is less prevalent in on-demand users.

How long does it last? Whether one look at the enterochromaffin-like cells or parietal cells, we know that the rebound hyperacidity lats more than 8 weeks but

certainly less than 26 weeks so there is a window of opportunity early in this process where confident and robust treatment strategies can stop patients automatically returning to their PPI . The less clinically significant effects of H2 receptor antagonists may make them even more attractive in mild GORD.

What is the best way to manage such patients? In the case of GORD, we have to rethink whether the patient is getting reflux and , if they are, what is being refluxed. Many people continue PPI therapy despite the lack of evidence that they have any reflux. Often they use it for reasons which are not associated with acid such as regurgitation and many have visceral hypersensitivity. This is despite the fact that regurgitation is less effectively treated by PPIs.

I think what we need to do is stop considering that PPIs are ‘one size fits all’ treatment. It is important to know why we are starting a PPI, what we are treating and what effects we are aiming for. To use a military term, we also need a robust exit strategy. Clear guidance should be given to patients on how long they will be treated for and how they are to cease treatment. Many patients far from being unwilling to come off medication are often very proactive in their wish not to take unnecessary treatment and this desire should be harnessed accordingly. Products such as Gaviscon are a good way of tiding people over this period and are known to be a cost effective way of getting patients to stay off PPIs after cessation for reflux reasons. Whilst being covered by raft alginates , the patient can reduce PPI slowly and such an approach is backed up by clinical studies.Getting to grips with this problem will decrease adverse events and reduce costs. There can also be positive benefits for the patient as we know many do not get full relief from use of PPIs, despite high doses, in reflux which is a reflection of the fact that reflux is not all acid related and the actions of bile acids and pepsin are being ignored. Many patients find strategies to stop PPIs improve symptoms and those using raft forming alginate suspensions note the effects of the protection from all aspects of the gained by such products.

In conclusion, no one can doubt the revolutionary effects PPIs have had on the treatment of GORD and peptic ulcer disease but this very success is causing increasing problems both cost wise and in clinical disturbances resulting from long term, and often incorrect ,use. Clinicians need to be aware of rebound hyperacidity and the role it plays in the continued long term use of PPIs.

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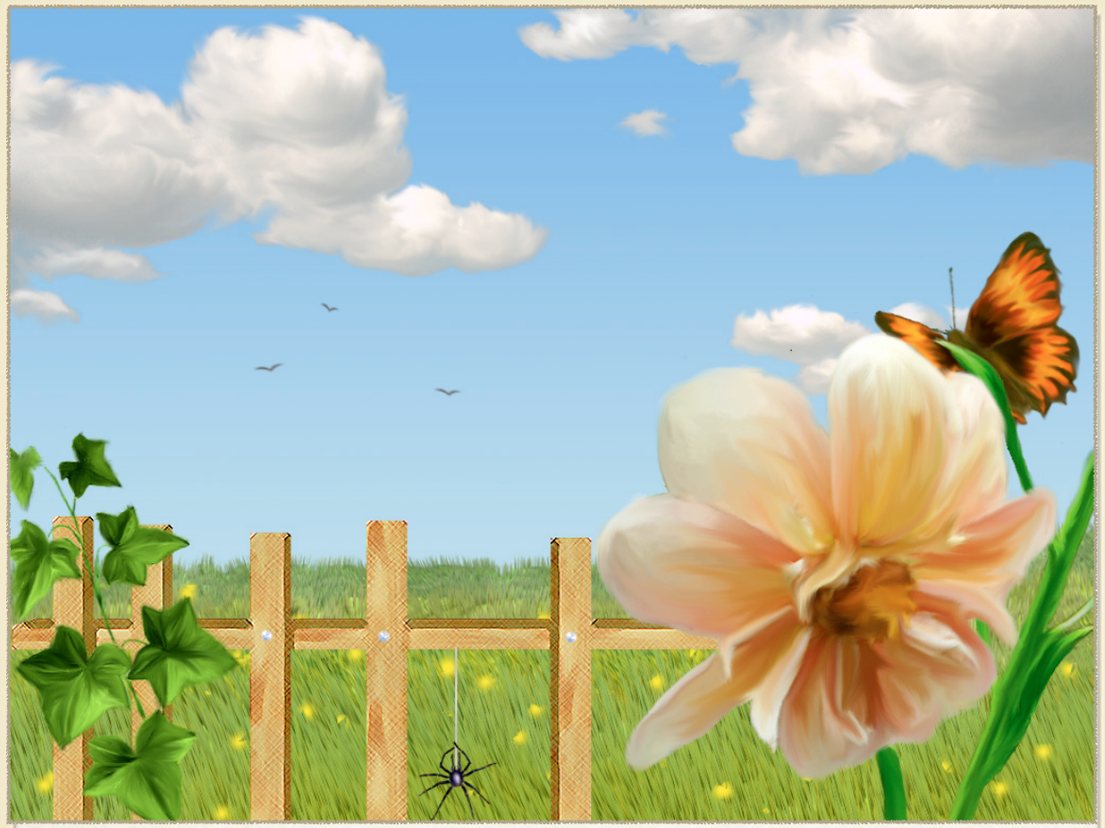

If there are any subjects you would like covered in future issues, case histories you would like discussing or even articles you have penned yourself, send them to John O'Malley, Editor JPCSG at johnomalley@nhs.net.

Thanks.

PCSG Annual Scientific Meeting

Friday 19th October
Kings Fund, 11-13 Cavendish Square, London, W1G 0AN
09.30 – 16.00

Time	Activity
09.00 **09.30**	**Registration** **Welcome and Introduction**
09.45-10.30	**Chairman – Dr Jamie Dalrymple** Care Pathway for patients with IBS-like symptoms: experience from a point of care test in primary care *Dr Jamie Dalrymple, GP, Norfolk*
10.30-11.15	Alcohol related disease and primary care; why joint working is vital *Prof Sir Ian Gilmore, President of the British Society of Gastroenterology*
11.15-11.30	**Coffee Break**
11.30-12.15	Paediatric Gastroenterology for Primary Care *Dr Fevronia Kiparissi, Consultant Paediatric Gastroenterologist, Great Ormond Street Hospital NHS Foundation Trust*
12.15-1.00	Gut Feelings – Emotions and Medicine *Dr Richard Stevens, GP, Oxford*
1.00-1.45	**Lunch**
1.45-2.45	**Annual General Meeting**
2.45-3.45	The Psychology of IBD *Dr Julian Stern, St Marks Hospital*
3.45-4.30	End of Life Care in Liver Disease *Dr Mark Hudson and Dr Stuart Kendrick, Newcastle Upon Tyne Hospitals*

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