



Therapeutics Today

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The treatment of *Helicobacter pylori* (*H pylori*) infection. The prevalence of *H pylori*, which increases with age varies widely in different countries; risk factors include social deprivation and household crowding. Its management was recently reviewed (*BMJ* 2008; 337: 1454; *Ir J Med Sci* 2008;177:185-188). *H pylori* has been associated with several conditions including peptic ulcers, mucosa associated lymphoid tissue lymphoma and gastric cancer. Indications for *H pylori* treatment include: non-ulcer dyspepsia, peptic ulcer disease and post-resection of gastric cancer. Patients <45yrs presenting with dyspepsia should be assessed for *H pylori* infection. **Diagnosis of *H pylori* infection** is made by a urea breath test (UBT), a stool antigen test or a "CLO" test performed at endoscopy. False negative results occur with UBT and CLO testing if

the patient is receiving proton pump inhibitor (PPI) therapy, which should be discontinued 2 weeks before the tests are performed.

First-line therapy - There are many eradication treatments of which the most widely recommended first line treatment is **triple therapy** with a PPI, clarithromycin + either amoxicillin or metronidazole (for penicillin allergy) for 7 or 14 days. An alternative treatment strategy known as **sequential therapy** has been proposed, which consists of a PPI + amoxicillin for 5 days, followed by a PPI combined with clarithromycin and metronidazole for a further 5 days. Recent studies suggest that sequential therapy is superior to triple therapy however the complexity of the therapy regimen is a disadvantage (*JAMA* 2008;300:1346-1347). Further studies are required before it can be advocated for first line treatment in Ireland. **Second-line treatment** - in many European countries quadruple therapy with a PPI, bismuth, metronidazole + tetracycline is recommended as second line treatment, however bismuth is no longer marketed in Ireland. Other options include a PPI, amoxicillin + levofloxacin for 10 days, however the development of resistance to levofloxacin is a concern. An alternative option is 7 days' therapy with a PPI, metronidazole + tetracycline or amoxicillin. **Eradication of *H pylori*** should be confirmed at **least 4 weeks after treatment ends**. Failure of eradication is associated with drug-resistant *H pylori* and poor compliance. Clarithromycin resistance is the strongest predictor of treatment failure and it should not be used in areas with an increased prevalence of clarithromycin resistance (>20%) or in patients previously treated with a macrolide. Conversely metronidazole resistance does not appear to affect the outcome. One study in Ireland showed 20% and 8.9% antimicrobial resistance to metronidazole and clarithromycin respectively (*Br J Biomedical Science* 2006;63 (3):113-116). Following second-line treatment failure repeat endoscopy with culture and sensitivity testing of *H pylori* should be considered, if available.



Update on Influenza. A recent press release from the Health Protection Surveillance Centre (www.hpsc.ie) has advised that while the overall influenza activity is currently low, there have been two confirmed cases of Influenza A for 2008/2009. Influenza can be associated with a significant economic burden, by affecting the individual's ability to work both in terms of attendance and level of productivity. A recent review assessing the impact of influenza on working days lost by adults (*Pharmacoeconomics* 2008; 26: 911-924) found that the average number of days lost per episode of influenza ranged from <1 to 6 days (the mean range of days lost where infection was laboratory confirmed was 3-5 days). The review concluded that serious consideration should be given to the number of therapeutic options (including prophylaxis) to reduce the economic burden of influenza on society. The HPSC reminds

prescribers that people in high-risk groups should now be vaccinated against influenza. These include: those >65 yrs, people with severe illness such as chronic heart disease, chronic lung disease and diabetes, those with lower immunity due to disease or treatment, children with chronic arthritis requiring long-term aspirin therapy (because of the risk of Reye's Syndrome), residents of nursing homes or other long stay facilities, health care workers and poultry workers, veterinary inspectors, agricultural workers, park rangers and those with likely contact with water fowl.



Steroids shorten the recovery time in Bell's Palsy (BsP). A recent article published the results of a new multicentred randomised controlled trial (RCT) which compared the short-term and long-term effects of prednisolone and valaciclovir in the treatment of BsP (*Lancet Neurol 2008;7:993-1000*). Patients (n=839) in the RCT, which took place in Sweden and Finland, were randomly assigned to placebo + placebo, prednisolone + placebo, valaciclovir + placebo or prednisolone + valaciclovir and were followed up for 12 months. Treatment was started within 72 hrs of onset and facial function was assessed with a grading system for the primary endpoint (time to complete recovery). The results of the analysis which was modified intention-to-treat, included 829 patients and found that time to complete recovery was significantly shorter in those patients who received prednisolone compared to those who did not (hazard ratio 1.40, 95% CI 1.18-1.64;p<0.0001) and there was no difference in time to recovery in those patients treated with valaciclovir compared to those who were not (HR 1.01, 0.85-1.19;p=0.90). The study found that at 12 months more patients who had received prednisolone had recovered (72%) compared to those who had not taken prednisolone (57%) (p<0.0001). The outcomes did not vary for those patients treated with valaciclovir, which was not proven to be effective and did not affect prednisolone treatment. The authors of the study conclude that **prednisolone was associated with significant short and long-term benefits in patients with Bell's palsy**. An accompanying editorial (*Lancet Neurol 2008;7:976-977*) says that in spite of the study being underpowered, the results underline the importance of steroids in the early treatment of BsP and states that the addition of valaciclovir is unnecessary.



Childhood Immunisation in Ireland. In the November edition of *EPI-Insight*, the Health Protection Surveillance Centre (HPSC) published national immunisation uptake rates for children of 12 and 24 months of age for 2007 (www.hpsc.ie). At 12 months, the uptake rates for the following primary immunisation schedule vaccines diphtheria, tetanus, pertussis, haemophilus influenzae type b (Hib), polio and meningococcal group C (=3 doses of each) averaged 87% (range 84-92% from region to region) which was an improvement of 1-2% compared with 2006 rates. The overall uptake rate for these vaccines at 24 months rose to 92% (range 89-97%). The national uptake rate for measles, mumps and rubella (MMR) vaccine was 87% (range 76-95%). Although uptake rates continue to rise year on year, **many regions are not achieving the target update rates of 95% necessary to control outbreaks of the diseases prevented by these vaccines**. Prescribers are reminded that a new childhood immunisation schedule with the addition of hepatitis B and pneumococcal vaccines came into effect for all babies born on or after July 1st 2008. Full details of the new schedule are available on the websites of the HSE National Immunisation Office and HPSC.

[Editor's note: HSE National Immunisation Office operates a user-friendly website dedicated to providing information on all aspects of immunisation in Ireland. In addition to information for the general public, there is a section dedicated to healthcare professionals that provides access to the current national immunisation guidelines as well as background information on individual vaccines and details of how to order vaccines through the HSE National Cold Chain Service. It can also provide copies of patient leaflets in 10 different languages, which may be downloaded and given to non-national patients and their guardians. The site content is monitored and regularly updated by a team of public health doctors (including members of the RCPI National Immunisation Advisory Committee) and staff from the National Immunisation Office. There is also a telephone answering service if you can't find what you are looking for on the website. Check out www.immunisation.ie or phone 01 8676108 (Fax 01 8682943)]

Every effort has been made to ensure that this information is correct and is prepared from the best available resources at our disposal at the time of issue. References are available on request. This newsletter is produced by the National Medicines Information Centre, St. James's Hospital (SJH) Dublin 8 and Dept of Therapeutics Trinity College, Trinity Centre, SJH. Tel: Direct Line (01) 473 0589 or 1850 727 727 Fax: (01) 473 0596 Email: nmic@stjames.ie