Management of impetigo

Dear bpac,

I have just read about the management of impetigo in BPJ 19 (February 2009). I have recently been asked about treating asymptomatic elderly carriers of MRSA that are resident in a rest home. This was on the basis of the eradication of the carrier status in a patient that was treated with antibiotics for another infection.

Is there any evidence for treating asymptomatic carriers in such a setting?

Dr Paul Kennedy, GP, Te Awamutu

Choosing whether to treat or not to treat a MRSA carrier depends on three factors; how successful is treatment likely to be, is the patient (or others) at risk of MRSA infection, and what is the local policy?

An individual MRSA carrier may be treated, or decolonised, with a combination of antiseptic washes and shampoos, topical antibiotic to the nostrils (mupicirin) and usually at least two oral antibiotics. This treatment reduces the amount of the original Staphylococcus aureus on the body. Following treatment recolonisation occurs either with the original strain (the MRSA) or a new strain. Clearing MRSA completely is difficult and colonisation can be very long term.

Individuals colonised with MRSA are asymptomatic. Therefore treatment is only recommended if there is a high risk of MRSA infection either for the patient or those around them. For instance treatment may be recommended by the hospital infection control team prior to elective surgery, to reduce the risk of peri-operative complications for the individual, and to reduce cross contamination between in-patients.

The risk of serious infection with MRSA is less in the community and decolonisation is not usually recommended. Instead standard infection control procedures to reduce cross colonisation are recommended for all residents, e.g. good hand hygiene and occlusive dressing of open wounds

Isolation of MRSA positive patients is not recommended. They should socialise as normal. However they should not share a bedroom if they (or their roommate) have a chronic open wound or invasive devise such as a catheter.

Should asymptomatic elderly carriers of MRSA in residential care be treated? Unless expecting surgery, probably not.

References

General Health Protection, Department of Health. Infection control guidance for care homes. Crown copyright, London 2006. Available from www.dh.gov.uk/publications (accessed April 2009)

Coia JE, Duckworth GJ, Edwards DI, et al. Guidelines for the control and prevention of meticillin-resistant Staphylococcus aureus (MRSA) in healthcare facilities. J Hosp Infect 2006;63S:1-44.

Royal College of Nursing. Methicillin-resistant Staphylococcus aureus (MRSA): guidance for nursing staff. London 2005.

CVD and Antioxidants

Dear bpac,

In your article "The Science Behind Lifestyle Risk Factors for Cardiovascular Disease" (BPJ 18), you state that "a higher intake of certain anti-oxidants has been shown to lower the incidence of heart disease". Interestingly you do not give any references to support this.

The recently published New Zealand Cardiovascular Guidelines Handbook (Page 31) contradicts this with "RCT evidence shows that vitamin supplementation with these anti-oxidant vitamins (beta carotene, vitamin C and vitamin E) does not reduce cardiovascular risk".

This topic made for lively debate in my peer review group.

How should we be advising our patients?

Dr Marion Taylor, GP, Wanganui

It is clear that there is benefit associated with greater consumption of fruits and vegetables. However, whether this benefit is due to antioxidant content remains to be determined, although there are a number of pointers in that direction.

"Up to Date" reviewed the literature on this topic again at the beginning of this year and their conclusion was as follows:

"Antioxidants have been evaluated for both primary and secondary prevention of coronary heart disease (CHD). Studies of the mechanisms of atherosclerosis suggest that antioxidants might be protective. Observational studies appeared to show benefits with higher intake of some antioxidants. Additionally, cardiovascular protection has been associated with diets high in antioxidants (from fruit and vegetables and with higher circulating levels of alpha tocopherol).

Despite this, most randomised controlled trials have not found antioxidant supplementation to be effective for the prevention of CHD. It is more difficult to assess the efficacy of dietary antioxidants in randomised trials. The association between dietary antioxidants and cardioprotection, despite the lack of benefits seen in trials of supplements, may reflect issues of confounding and bias in observational studies, or may occur because the full complement of antioxidants in foods are different from what is found in supplements or are present in more optimal ratios."

The guidelines are correct to say supplementation has not been proven to reduce CVD risk, however this is different to the statement in the bpac article that "a higher intake of certain anti-oxidants has been shown to lower the incidence of heart disease" albeit it a somewhat subtle difference.

The best advice to patients is to ensure an adequate intake of fruit and vegetables as the "shortcuts" have yet to be proven.

Reference

Tangney C, Rosenson R. Nutritional antioxidants in coronary heart disease. UpToDate 2009. Available from www.uptodate.com (Accessed May 2009).

Erratum – STI testing report

Dear Editor

In the recent STI testing report (April 2009), I found one paragraph quite confusing which made me go to the referenced article to clarify what you meant. In the report you state the following;

> "Currently, approximately only 9% of all Chlamydia tests performed in New Zealand return a positive result. A study in London was able to demonstrate that by using a risk assessment strategy based on testing those under 25 who had two or more sexual partners in the past year, they were able to increase the yield of positive results to 87%."

This seemed to be saying that by using this strategy you could get 87% of your tests positive - a remarkable number indeed but alas not so. The 87% refers to detecting 87% of the positives in the screened population. To do this they had to screen 49% of their sample of women. The actual yield rate would have been about 20/445 or about 5%.

Am I right or have I misread this?

Dr Michael Brewer, GP, Motueka

The short answer is that you are right. This paragraph has confused the number of positive results with the sensitivity of a particular screening strategy. The best way of clarifying this may be to take a closer look at the study itself (the long answer).

The study by Grun et al had three objectives:

1. *To estimate the prevalence of Chlamydia trachomatis in asymptomatic women attending general practice*
2. *To assess the potential of the ligase chain reaction as a screening tool*
3. *To evaluate selective screening criteria*

The third objective was the focus of the bpac^{nz} report because asymptomatic infection is unlikely to be detected without a screening programme. But given the relatively low prevalence of infection, it is more appropriate to consider targeted screening than universal testing.

When considering targeted screening strategies Grun et al noted that younger age and multiple partners were associated with infection. They tested possible combinations of age and number of partners to identify a strategy that detected the greatest number of infections for the least number of people tested.

The study group of 879 women aged 18–35 years were all tested and 23 Chlamydia infections were detected.

- *If only women aged 25 years or less had been screened, 17 of 23 infections (74%) would have been detected by testing approximately 35% of the study population*
- *If only women aged 29 years or less had been screened, 20 of 23 infections (87%) would have been detected by testing approximately 67% of the study population*
- *If only women aged 25 years or less **and** all women who had had two or more partners in the past year had been screened, 20 of 23 infections (87%) would have been detected by testing approximately 49% of the study population*

*While no targeted screening strategy detected all the cases of infection, testing women aged 25 years or less **and** all women who had had two or more partners in the past year detected the greatest number of infections for the least number of people tested.*

Reference

Grun L, Tassano-Smith J, Carder C, et al. Comparison of two methods of screening for genital chlamydial infection in women attending in general practice: cross sectional survey. BMJ 1997;315:226-230.

We value your feedback. Write to us at: Correspondence, PO Box 6032, Dunedin or email: editor@bpac.org.nz