



## Antibiotic Prophylaxis for Endoscopic Procedures

By Dr Alistair Cowen

**Dramatic** changes in recommendations for antibiotic prophylaxis in cardiac patients undergoing a wide variety of medical surgical and dental procedures have recently been made. The American Heart Association, the American Dental Association, the British Society for Antimicrobial Chemotherapy, the National Institute for Health and Clinical Excellence (NICE) and Therapeutic Guidelines Australia - prevention of Endocarditis; have all issued new guidelines during 2007-2008.

In general they have all greatly reduced the indications for which antibiotic prophylaxis is recommended. The NICE guidelines are at the extreme end of the spectrum recommending no antibiotic prophylaxis for any cardiac condition regardless of the procedure being undertaken. Most would regard this position as extreme.

I have defined as HIGH RISK those conditions where the American Heart Association and the Therapeutic Guidelines Australia recommend antibiotic prophylaxis for dental and gastrointestinal procedures. In addition some cardiac conditions previously defined as HIGH or MODERATE RISK are listed as optional for antibiotic prophylaxis. Also listed as LOW RISK are some conditions previously recommended as requiring antibiotic prophylaxis where it is now general agreement that prophylaxis is not required unless other specific co-morbidities are present.

Antibiotic prophylaxis is recommended or considered optional for a variety of non cardiac increased risk clinical disorders. These include patients with severely compromised immune status, indwelling vascular devices and recent joint replacement.

High risk patients as defined by the American Heart Association:-

- Prior infective endocarditis;
- Prosthetic cardiac valves;
- Unrepaired cyanotic congenital heart defects, including palliative shunts and conduits;

- Congenital heart defects completely repaired with prosthetic material or a device, whether placed by surgery or by catheter intervention, during the first 6 months after the procedure;
- Repaired congenital defects with residual defects at the site or adjacent to the site of a prosthetic patch or prosthetic device;
- Cardiac transplant recipients with cardiac valvular disease;
- Rheumatic heart disease in Indigenous Australians.

#### MODERATE RISK CARDIAC CONDITIONS AS DEFINED IN SOME OTHER GUIDELINES

- Clinically significant aortic stenosis / incompetence;
- Clinically significant mitral stenosis / incompetence;
- Cardiac stents with 6 months of placement.

#### OTHER CONDITIONS FOR WHICH ANTIBIOTIC PROPHYLAXIS MAY BE CONSIDERED

- Severely immune compromised eg: lymphoma, chemotherapy, myeloid dysplasia, advanced malignancy, neutropenia, advanced hepatic or renal failure;
- Indwelling venous access devices eg: portacaths, ventriculo-peritoneal shunts;
- Artificial joints with 6 months of insertion

#### LOW RISK CONDITIONS WHERE ANTIBIOTIC PROPHYLAXIS IS NOT NOW RECOMMENDED

- Bicuspid aortic valve;
- Minimal valvular disease including mitral valve prolapsed;
- Previous rheumatic heart disease in non Indigenous Australians;
- Joint replacements longer than 6 months.

Please note that oral antibiotic prophylaxis commencing the day before an endoscopic procedure is NEVER recommended and has the potential to encourage colonisation with resistant organisms. Antibiotic prophylaxis should be intravenous and given immediately before the commencement of the procedure.