

New antibiotic approved for MRSA

The US Food and Drug Administration (FDA) approved Tygacil (tigecycline) in mid-June for the treatment of methicillin-resistant *Staphylococcus aureus* (MRSA) in cases of complicated intra-abdominal infections and complicated skin infections in adults.

The antibiotic has a broad spectrum of activity and can be used as an empirical monotherapy to treat infections that are both nosocomial related and community acquired. It can be used before the specific bacteria present have been assessed, it does not require dosage adjustment in patients with impaired renal function, and can be dosed every 12 hours.

"Tigecycline represents a welcomed addition to the limited number of antimicrobials available for treating resistant Gram-positive aerobic infections", comments Mark Garrison (Washington State University, Spokane, Washington, USA). Garrison has been involved in trialling tigecycline and he reports that it has pronounced activity against



Tigecycline will be useful for infected burns

quinolone-resistant *Streptococcus pneumoniae*, and is also active against strains of MRSA and vancomycin-resistant enterococci. "Regarding the Gram-negatives, tigecycline has good activity against many of the Gram-negatives (particularly *Acinetobacter* spp), but falls short for *Pseudomonas*, *Serratia*, and *Providencia*", he says.

Greg Anstead (Medical service, South Texas Veterans Healthcare system, San Antonio, TX, USA) comments that although we have other treatments for these type of infections, "tigecycline may prove most useful in off-label roles, such as against *Acinetobacter*, *Stenotrophomonas*, atypical mycobacteria, and

extended-spectrum beta-lactamase-producing organisms".

Tigecycline is currently only available for intravenous use. From a pharmacokinetic/pharmacodynamic standpoint, tigecycline has an attractive profile with a long half-life and good distribution. The drug appears to be stable against many of the resistance mechanisms that have caused problems for the related tetracycline derivatives. Both Garrison and Anstead agree that the only real blemish with tigecycline is the gastrointestinal intolerance associated with the drug. "Nausea and vomiting represent the biggest complaint as far as dose-dependent adverse events but few patients in clinical trials discontinued therapy as a result", says Garrison. He recommends that tigecycline therapy should begin with an initial loading dose, and that it may be necessary to pre-medicate patients with an antiemetic agent.

Kathryn Senior

Sexual transmission propels China's HIV epidemic

Current trends in sexual behaviour could promote an HIV epidemic among the heterosexual population in China (*Sex Transm Dis* 2005; **32**: 270–80). Lead author Hongmei Yang, Wayne State University School of Medicine, Detroit, USA, says: "The HIV epidemic in China has reached the rapid spread phase". Joel Rehnstrom, Country Coordinator, UNAIDS China, adds: "Although China is still a low HIV prevalence country, in 2004, the number of reported cases more than doubled compared with the year before".

In China, HIV has been mainly transmitted by injecting drug users, blood/plasma collection, and blood transfusion. Although current surveillance suggests that only 7.5% of transmission is sexual, Yang believes that this figure is an underestimate. Edmund Settle, Program Coordinator China

HIV/AIDS Information Network, Beijing, China, reckons the rate of sexual transmission has risen to 30% from 8.4% at the end of 2002. Yang says: "Risk factors that contributed to the explosive heterosexual epidemics in Thailand and Cambodia currently exist in China, including high rates of sex worker patronage, low rates of condom use, and concurrent sex with both sex workers and casual or steady sexual partners."

Rehnstrom believes that "overall level of awareness and knowledge of HIV/AIDS in Chinese society remains very low—despite increased awareness campaigns—and a key reason why people engage in high-risk behaviour. Many women need to sell sex to earn a living and are either unaware of the risks or unable to resist pressure for unprotected sex." Yang says that economic reforms have allowed unhealthy sexual

attitudes to emerge, where having multiple sexual partners is seen as a token of success, power, and socioeconomic status. Also, there are a huge number of rural-to-urban economic migrants, many of whom are in the sexually active age group and are likely to be involved in high-risk sexual behaviour.

"The Chinese government has recognised the magnitude of the epidemic and has taken many positive actions, such as the formation of a high-level HIV/AIDS Coordinating Committee", says Yang. Settle believes that "top policy makers fully understand the long term economic and political importance of preventing a wide-spread HIV epidemic, however, at the local level, leaders often deny or don't view HIV/AIDS as a priority in their areas".

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