the following antibiotics: ampicillin, oxytetracycline, kanamycin, streptomycin, amikacin, gentamicin, levofloxacin, ciprofloxacin and erythromycin. Out of 90 *E. coli* isolates in our study, 16.66% were positive for *stx1* and 22.22% for *stx2*, while 10 isolates (11.11%) were positive for both *stx1* and *stx2*.

Conclusion: This study demonstrated the presence of multidrug resistant *E. coli* in aquatic samples, with the highest prevalence in sediment and fish. The sanitary importance of these strains is being stressed by the antibiotic resistance and pathogenic potential for consumers and other contact categories, where further studies are needed to establish the underlying mechanisms.

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Prevalence and antibiotic susceptibility of ureaplasma species isolated from women presenting for termination of pregnancy at the Doctor George Mukhari Academic Hospital

L.M. Ngobeni [1,*], B. De Villiers [2], M. Le Roux [2], R.M.M. Ditsele [3], S. Monokoane [2]

[1] *University of Limpopo, Medunsa Campus, Pretoria, South Africa*
[2] *University of Limpopo, Pretoria, South Africa*
[3] *University of Limpopo, Medunsa, South Africa*

Background: Untreated sexually transmitted infections in association with termination of pregnancy are known to increase the risk of post-termination complications. Limited data regarding susceptibility profiles among *Ureaplasma* strains circulating the Ga-Rankuwa community is available. The prevalence and susceptibility profiles of ureaplasmas isolated from women presenting for termination of pregnancy at the Dr George Mukhari Academic Hospital over a two year period were compared

Methods & Materials: Two vaginal swabs were collected from 100 consenting women in 2012 and from 120 women in 2013. The first swab was used for PCR detection of ureaplasmas and tetracycline-associated resistance genes. The second swab was used for culture (*Mycoplasma* Duo kit) and antimicrobial susceptibility testing (SIR *Mycoplasma* kit).

Results: Ure*aplasma* species were isolated from 46/100 (46%) women in 2012, of which 42 were infected with *U. urealyticum*, 1 with *U. parvum* and 3 were dually infected. Sixty-two percent of women (74/120) were infected with ureaplasmas in 2013. Forty-eight of these were infected with *U. urealyticum*, 18 with *U. parvum* and 8 were dually infected. Susceptibility profiles were obtained for 41 isolates in 2012 and for 31 in 2013. Fifteen (37%) have shown resistance to tetracycline in 2012, of which 14 were concurrently resistant to doxycycline and 1 intermediately resistant to doxycycline. Two of the 31 strains in 2013 were dually resistant to tetracycline and doxycycline and one strain was resistant to azithromycin. Intermediate resistance to erythromycin, azithromycin, doxycycline and ofloxacin was seen in both groups. In 2012, all 41 strains contained the *tetM* gene, 39 contained the 1.7 kb fragment of the tetracycline resistance gene and 36 strains contained the *int*-Tn gene. Of 70 strains tested in 2013, all contained the *tetM* gene, 69 contained the 1.7 kb fragment of the tetracycline resistance gene and 63 contained the *int*-Tn gene.

Conclusion: Significantly more (P = 0.0216) ureaplasmas were isolated in 2013 than in 2012. Tetracycline and doxycycline dual resistance was significantly higher in 2012 than in 2013 (P = 0.0085). Results of this study will be communicated to the department of Obstetrics and Gynaecology at the University of Limpopo.

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Prevalence of drug resistant tuberculosis in patients presenting with a large pericardial effusion at King Edward VIII Hospital

N.P. Magula [1,*], N.D. Madala [1], Y. Kriel [1], V. Bayi [2], N.P. Duze [1], T.C. Manzini [1], R. Matshela [1], D.P. Naidoo [1], B.M. Mayosi [3]

[1] *Nelson R Mandela School of Medicine, University of KwaZulu-Natal, Durban, South Africa*
[2] *King Edward VIII Hospital, Durban, South Africa*
[3] *University of Cape Town, Cape Town, South Africa*

Background: Tuberculosis (TB) accounts for 70% of pericardial effusions in sub-Saharan Africa. There is a high burden of drug resistant TB in South Africa, with an estimated 4600 new cases identified in 2012, but its frequency in patients with pericardial TB is unknown. The aim of this study was to determine the prevalence of drug resistant tuberculosis in patients admitted to King Edward VIII hospital with a pericardial effusion.

Methods & Materials: This was a cross sectional study of participants enrolled in the Investigation of the Management of Pericarditis (IMPI) study from October 2009 to August 2013. Enrolled participants were adults with a clinical diagnosis of TB pericarditis. Diagnostic and therapeutic pericardiocentesis was preformed where suitable. Biochemistry, microscopy, liquid culture (MGIT 960), line probe assay, direct sensitivity testing and cytology were performed.

Results: A total of 163 participants were enrolled, 129 (79.6%) of whom were HIV infected. Pericardiocentesis was performed in 100 (64%) participants and diagnostic tests for tuberculosis were performed in 78 of these. Acid fast bacilli were observed in 10/75 (13.3%) using Auramine stain and 23/78 (29.5%) were culture positive (3/78 samples were not suitable for Auramine stain). Where acid fast bacilli were observed, either by smear microscopy or culture, line probe assay identified *Mycobacterium tuberculosis complex* in 21/24 (87.5%); 2/21 (9.5%) isolates were resistant to isoniazid and rifampicin (MDR-TB) with 1 of the 2 also resistant to streptomycin, ofloxacin and kanamycin (XDR-TB). No patients were found to have co-infections or malignancy.

Conclusion: Drug resistant TB was present in nearly 10% of patients with culture positive TB pericarditis. The finding of resistant TB, isolated only from the pericardial space, underscores the importance of diagnostic pericardiocentesis in patients with a presumed diagnosis of TB pericarditis.

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