

seling is highly recommended not only for infectious diseases prevention (e.g., vaccination) but also for lifestyle modification.

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### Co-Existence of BKV and Disseminated Tuberculosis in Transplant Recipient

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Tuberculosis (TB) in renal transplant recipients presents important diagnostic difficulties because of the greater incidence of extra-pulmonary involvement, negative sputum smear results despite active disease and its atypical presentation, specifically reactivation of the latent form. BKV nephropathy was first reported in 1995, coinciding with the widespread use of immunosuppressive drugs, which can complicate the cores of 1–10% of renal transplant recipients. It is also not uncommon to find the existence of bacterial or fungal infections in the presence of an immuno-modulating virus like cytomegalovirus infection. Herewith, we describe a 67-year-old Saudi male who presented with deterioration of renal function and fever of unknown origin and was documented to have polyoma virus nephropathy and disseminated TB. To the best of our knowledge, this is the first report of such an association in the literature

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### Antimicrobial resistance treatment out of pocket expenditure cost analysis in Saudi Arabia and other Arab countries

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**Background:** Antimicrobial resistance remains a persisting and growing public health menace in Saudi Arabia and other Arab countries.

**Methods:** A randomized comparative and prospective study was conducted in Mars 2017 to uApril 2018 on 387 clinical cases with history of drug or multidrug resistance.

**Results and discussions:** A total 27% were related to antibacterial resistance, 12% linked to insulin resistance and 5% mixed. The cost of treatment varied from pathogen, disease severity, duration of treatment and age related complications. Insights AMR risk factors, out of pocket and insurance impact was analysed and discussed.

**Conclusions:** AMR impact is still poorly understood in Arab countries including Saudi Arabia, UEA and presents a huge out of pocket expenditures both individual and insurance firms. AMR insured policy should be explored and implemented. Evidence-based population AMR risk and cost-assessment in generating effective data and AMR data sharing forecasting is needed in advancing drug prescription, medication adherence and patient centered quality service delivery.

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### Molecular and serological monitoring of dromedary camel herds for the Middle East Respiratory Syndrome Coronavirus

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**a. Background and Purpose:** The Middle East respiratory syndrome coronavirus (MERS-CoV) is ubiquitous in dromedary camels. Several studies reported the high seroprevalence of MERS-COV among dromedary camels in the Middle East and Africa. Furthermore, it was not clear if the previously infected animals could be further infected if exposed to the virus for the second or third time. The reasons behind these phenomena still require more explanation. We conducted a longitudinal study to answer these important questions and provide some clues on the potential vaccination strategies for dromedary camels against MERS-CoV.

**b. Methodology:** Two herds of dromedary camels were longitudinally sampled with nasal and rectal swabs and serum, between September 2014 and May 2015, and the samples were tested for Middle East Respiratory Syndrome (MERS) coronavirus RNA and antibodies.

**c. Results and Discussions:** Evidence of MERS-CoV infection was confirmed in one herd on the basis of detection of virus RNA in nasal swabs from three camels and significant increases in the antibody titers from three others. The three viruses were genetically identical, thus indicating introduction of a single virus into this herd.

**d. Conclusions:** There was evidence of reinfection of camels that were previously seropositive, thus suggesting that prior infection does not provide complete immunity from reinfection, a finding that is relevant to camel vaccination strategies as a means to prevent zoonotic transmission.

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