therapies, bacteriophage cocktails. The value of such approaches as well as the regulatory pathways are not clear yet. Potentiating strategies have seen a resurgence in recent years and are focused on blocking specific resistance mechanisms such as beta-lactamases, resistance-regulating determinants, preventing transfer of resistance plasmids or on protecting the microbiome, disrupting biofilms, targeting dormant bacteria, blocking virulence factors, or supporting the immune system. In response to relaxed regulatory requirements and economic incentives, recent years have seen a trend towards reviving old drugs (e.g. fosfomycin, fusidic acid, minocycline, aztreonam), modifying old drugs (e.g. colistin) or potentiating old drugs (e.g. combination of approved drugs, ß-lactamase-inhibitor combinations). These approaches will not solve our major problems with resistant bacteria but may buy some time.

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Type: Invited Presentation

Final Abstract Number: 31.003
Session: New and Recently Approved Antibiotics: Challenges and Opportunities
Date: Saturday, March 5, 2016
Time: 10:15-12:15
Room: Hall 2

Incentivizing antibiotic innovation

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Abstract: Antibiotic resistance can develop quickly. The CDC demonstrated in 2013 that the first reported cases of bacterial resistance occurred in less than three years after market introduction of six key antibiotics. Yet antibiotic innovation is progressing at a more sedate pace, with only seven new classes of antibiotics launched between 2000 and 2014 (Laxminarayan 2014). One reason for this mismatch is that the pharmaceutical industry is not incentivized to develop new antibiotics. Existing, generic antibiotics are inexpensive and still generally effective. New classes of antibiotics are often necessary for only a small number of patients or as an insurance mechanism for potential future outbreaks, making the return on the sizeable investments in research and development insignificant or negative. These poor returns encourage the pharmaceutical industry to focus their efforts elsewhere. Yet resistance continues to emerge, and if we wait until a major outbreak occurs, given the long lead-times for developing a new antibiotic, it will be too late. New incentives are necessary to stimulate greater antibiotic innovation, and they must be linked to the sustainable and appropriate use of the resulting antibiotic. Otherwise resistance may develop faster. New incentives need to reward developers for their knowledge generation, not the number of treatments sold. They also need to ensure that patients receive the necessary antibiotic, regardless of income status. These are fundamental changes to the current reward system for pharmaceutical innovation. The EU-financed Innovative Medicines Initiative project, Driving reinvestment in R&D for antibiotics and advocating their responsible use (DRIVE-AB), is tasked with identifying new, sustainable economic models as well as recommendations for a viable path forward to greater antibiotic innovation.

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Room: Hall 2

Basic improvement methods in stewardship

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Abstract: Pragmatic strategies to improve antibiotic prescribing will be discussed in this session. Although a whole healthcare economy approach to antibiotic stewardship will be advocated, the particular focus will be within acute health care. Implementation and adoption will be considered along with improvement methods in stewardship. Supporting organisational models will also be reviewed and practical examples and case studiesdescribed. The real and potential challenges faced in delivering effective antibiotic stewardship and sustaining improvement will be discussed.

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Session: HIV - Hot Topics in Antiretroviral Therapy and its Consequences
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Time: 10:15-12:15
Room: Hall 5

Update on HIV Prevention

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Abstract: In recent years, definitive studies have demonstrated the effiacy of the use of antiretroviral medications for primary and secondary HIV prevention. The HPTN 052 trial enrolled 1,752 partners in HIV discordant couples in Africa, Asia and the Americas, and randomized the infected partner to receive immediate versus deferred antiretroviral therapy. HIV-infected participants who immediately initiated treatment were more than 96% less likely to transmit HIV to their partners compared to those in the delayed arm. The public health benefit of early treatment has been corroborated by population level studies correlating decreasing HIV incidence in several areas of southern Africa with access to early initiation of antiretrovirals. However, since the majority of people living with HIV globally are unaware of their infection, and less than 1/3 are virologically suppressed, new approaches to primary prevention for high risk seronegatives are also needed. Ten randomized, controlled trials of antiretroviral pre-exposure prophylaxis (PrEP) have been conducted, with studies in men who have sex with men, heterosexual discordant couples, and injection drug users finding that oral tenofovir-based regimens have been effective in decreasing HIV incidence. Several studies of PrEP in young African women have not demonstrated efficacy, while others have, with variable levels of medication adherence explaining most