

International Conference on **Antimicrobial Agents and Chemotherapy** August 04-06, 2015 Valencia, Spain

Clindamycin & Primaquine for *Pneumocystis jirovecii* pneumonia; 27 years after

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Pneumocystis jirovecii pneumonia (PCjP) is still a common AIDS-defining disease and cause of mortality in HIV-infected persons. Moreover, it is increasingly reported in other immunodeficient populations. Conventional treatments, trimethoprim-sulfamethoxazole (Tmp/Smx), pentamidine or atovaquone are effective in 80-96% of cases and/or carry a high risk of drug-related events. Increasing prevalence of sulpha allergy or intolerance is now reported. The combination of Clindamycin with Primaquine (Cm/Prq) is known for its anti PCjP effects since 1988, in addition to their effects on *Plasmodium* infections. Our group firstly reported its use in humans as salvage therapy in patients unresponsive or intolerant to conventional agents in 1988. A meta-analysis of salvage therapy for PCjP who failed a first regimen reported that Cm/Prq was the most effective alternative therapy. We also performed two double-blinded controlled studies (1993, 1998) showing that Cm/Prq is as effective and better tolerated ($P=0.04$) than Tmp/Smx when used as primary therapy. Our results were confirmed by larger studies and 2 other meta-analysis showing that Cm/Prq had the same rates of success, failure or treatment-limiting effects as Tmp/Smx or Tmp/dapsone. Atovaquone was less effective than Tmp/Smx, had higher relapse rates and it is much more expensive. In conclusion, Cm/Prq is a reasonable alternative to Tmp/Smx for both salvage and primary therapy of PCjP in both HIV-infected or other immunodeficient populations and this after 27 years in use.

Biography

Emil Toma has completed his DSc in Microbiology and specialization in infectious diseases in 1971, at the University of Bucharest, Romania. In 1986, he joined the University of Montreal, Canada where he is a full Clinical Professor in the Department of Microbiology, Immunology and Infectious Diseases. He has published more than 138 papers in peer-reviewed journals, 5 books and wrote several chapters in 8 other books. He also developed a "boosted-reverse transcriptase inhibitor" (patented in USA, Australia and Canada).

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