Better Antibiotics for Second-Line PCP Treatment

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A combination of two oral antibiotics is more effective than the commonly used, yet side effect-prone, intravenous pentamidine for people who've failed their first AIDS-related pneumonia regimen, according to the authors of a new study published in the May 1 issue of the *Journal of Acquired Immune Deficiency Syndromes (JAIDS)*. Data supporting the use of clindamycin and primaquine is promising news for the roughly 10 percent of patients whose first course of treatment for Pneumcystis jirovecii pneumonia (PCP) doesn't work.

Intravenous pentamidine is known for a range of serious side effects, including kidney toxicity, low blood pressure and low white blood cell count, and has been shown less effective as treatment for PCP than the antibiotic trimethoprim-sulfamethoxazole (TMP-SMX), commonly known as Bactrim or Septra. For this reason, pentamidine is typically recommended only as second-line therapy for those who don't respond effectively to their initial treatment choice, or as first-line treatment for people who cannot tolerate TMP-SMX. There are alternatives to pentamidine, but there has been little research to show how effective they may be in treating people who fail their first PCP regimen.

Thomas Benfield, MD, DMSci, from the Department of Infectious Diseases at Hvidovre University Hospital in Copenhagen, Denmark, and his colleagues conducted an analysis of 29 published studies, plus an additional 82 case reports from three European cities. In all, they were able to study the outcomes of 468 second-line PCP treatment episodes.

Benfield's team found intravenous pentamidine was effective 44 percent of the time in curing cases of PCP in people who'd failed their first treatment. However, the cure rate was far higher (73 percent) in people who took clindamycin and primaquine, which are also less likely to cause serious side effects than pentamidine.

Benfield's group recommends that clindamycin-primaquine now be used as second-line treatment in people with PCP who fail on TMP-SMX, or who cannot tolerate TMP-SMX.