Ribavirin for Upper Respiratory Tract Infections

To the Editor—Chemaly et al should be congratulated for completing the daunting task of fully enrolling their recent study [1]. However, their conclusion that an intermittent ribavirin schedule has higher efficacy than a continuous schedule seems to be premature for several reasons.

First, although such studies can decrease the necessary sample size, adaptive randomization schemes remain controversial as they can yield significantly unbalanced treatment arms. The posterior probability required to declare one treatment superior is not standard and was not designated in the methods for this study. The result was an encouraging 0.88. However, the P value for the primary outcome, progression to lower respiratory tract infection (LRTI), remained nonsignificant, at .230.

Second, almost all patients in the study had undergone hematopoietic stem cell transplantation. The risk of respiratory syncytial virus LRTI is probably greatest in the first few months after transplantation. Although the difference in the time from transplantation to respiratory syncytial virus infection in the 2 arms was not statistically significant, a mean of 99 days in the arm receiving the continuous schedule seems much shorter than the 166 days observed in the group receiving the intermittent schedule.

Finally, the efficacy of aerosolized ribavirin by any schedule for prevention of progression to LRTI has not been proven. The authors have published a very complete systematic review on the topic, but that review identified only a single, small randomized trial involving 14 cases [2]. Pooling nonrandomized studies can lead to significant biases, as many confounding factors contribute to treatment decisions. The current study would have benefitted from a placebo arm.

Note

Potential conflicts of interest. Author certifies no potential conflicts of interest.

The author has submitted the ICMJE Form for Disclosure of Potential Conflicts of Interest. Conflicts that the editors consider relevant to the content of the manuscript have been disclosed.

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References


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