



## Reducing Bloodstream Infections in Patients Receiving Infusion Therapy

In September 2006, CDC learned about bloodstream infections occurring in outpatients being treated for a life-threatening disorder called pulmonary arterial hypertension (PAH). PAH is characterized by high pressure in the arteries connected to the lungs. Hundreds of PAH treatment centers exist throughout the United States, frequently administering two approved medications—the intravenous drugs epoprostenol and treprostinil. A PAH specialist in New York noticed what appeared to be a higher number of infections occurring in patients receiving treprostinil, and called CDC.

CDC's Epidemic Intelligence Service (EIS) officers worked with health departments and treatment centers in Illinois, New York, Colorado, Minnesota, Texas, North Carolina, Arizona, and Michigan to investigate. The CDC team studied the charts of patients who had received at least one of the two approved treatments between 2003 and 2006. Investigators also studied infection-control practices at one of the treatment centers. The study found higher rates of bloodstream infection among patients who received treatment with treprostinil. CDC reported these results to PAH treatment centers nationwide and to the U.S. Food and Drug Administration (FDA).

With this new, important information, CDC helped the pulmonary hypertension community draft new guidelines to decrease the rate of bloodstream infections in people required to use treprostinil. Based on CDC's investigation, in February 2008, FDA approved required changes in product labeling to warn providers and patients about the risk. CDC investigators predict these actions will result in fewer bloodstream infections among PAH patients worldwide, and will help providers treat bloodstream infections appropriately. Anecdotal reports suggest that rates of infections have

decreased since the labeling changes were implemented, but further investigation is needed to confirm these reports.

CDC's investigation of bloodstream infections in PAH patients is just one example of the work of fellows in CDC programs such as EIS. CDC funds fellowships that recruit and train approximately 200 epidemiologists, economists, informaticians, physicians, and other health leaders into the field of public health each year. More than 70 percent of these fellows remain in public health after graduation from their programs, working at the federal, state, and local levels to prevent and detect disease, and prepare for threats before people become sick or injured.



Many PAH patients receive medication through a central venous catheter like the one illustrated above.

For more information about CDC at Work, please contact us at (202) 245-0600 or go to <http://www.cdc.gov/washington/>.