Blood banks fight germs in donations

Success with HIV spurs further efforts

By Lauran Neergaard
ASSOCIATED PRESS

WASHINGTON – Ask about blood safety and most people think HIV or other viruses that today are incredibly rare in transfusions. Bacterial contamination of blood poses a much bigger risk – sickening and killing dozens of people a year – yet germ-tainted transfusions get little attention.

Now blood banks are starting to adopt new anti-germ technology as transfusion specialists urge the government to tackle the problem.

"Although the public is worried about HIV or West Nile virus, we may have to occasionally stand up and say in public or to a newspaper reporter, 'That's not what we should be worrying about,'" blood-safety specialist Dr. James AuBuchon of Dartmouth Medical School told a recent meeting of the government's top blood advisers. "Share with the public what the real risks are."

Topping that list: germs. They sneak into donated blood mostly from skin. Cleaning skin only clears surface bacteria; the donation needle picks up skin cells and microbes from hair follicles as it penetrates.

Also, blood donors can have bacteria in their bloodstream, even if they have no symptoms. Oklahoma researchers even discovered a blood donor who unknowingly harbored salmonella from his pet snake. Two recipients of the man's blood were infected, and one died.

Two parts of donated blood – plasma and red blood cells – are refrigerated or frozen, stopping germs from growing. But platelets, important for blood clotting, must be stored at room temperature, ideal for bacteria to rapidly grow into illness-causing amounts – and platelets go to the very patients least able to fight off germs, such as cancer and burn victims.

Don't panic – germs still pose a very low risk when you consider that blood transfusions save 4.5 million lives a year.

But for every million bags of platelets transfused, 1,000 are contaminated with bacteria, says the government's Blood Safety and Availability Advisory Committee.

Not all contain enough germs to sicken, and there are no good counts of how many do.

But committee chairman Dr. Mark Brecher estimated at least 300 platelet recipients a year get infections, ranging from mild to severe. And while the Food and Drug Administration counted 17 deaths due to bacterial contamination last year, AuBuchon said several dozen more may have occurred but weren't reported – a death rate he put at 7 per million units of platelets.

Compare that with the AIDS virus: Thanks to modern testing, the risk of HIV is only 1 in every 2 million units of blood transfused.

Last month, Brecher's committee urged Health and Human Services Secretary Tommy Thompson to immediately take steps to reduce bacterial contamination, steps that cash-strapped hospitals may be reluctant to pay for without a government directive.

"We don't have a perfect solution right now, but we have a lot of partial solutions that would take us most of the way," Brecher said.

Thompson spokesmen had no comment.

But at the FDA, "we've been chipping away" at the problem, said blood chief Dr. Jay Epstein. FDA recently approved:

▶ A new blood-collection bag with a pouch on the side to hold the first few teaspoons donated. The first blood through the donor needle contains the most, though not all, skin-spread bacteria. Banks will divert that blood for the safety testing required of all donations, keeping it from patients without wasting it.

▶ Two bacteria-detection machines, by Pall Corp. and BioMerieux. The machines measure either carbon dioxide or oxygen, gas levels that indicate how many bacteria are present in a platelet sample.

The bacteria detectors so far are only for a blood bank's internal quality control – not as assurance each bag is bug-free. That's because testing is done hours or days before platelets are used, time for more germs to grow, Epstein said. FDA is requiring more research to prove if the detectors reliably predict later sterility, and blood banks are seeking government funding to do so.

But blood banks already are adopting the technology, said Celso Bianco of America's Blood Centers.

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