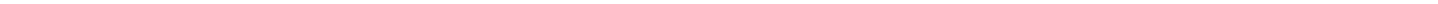




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## Human Bites: Bloodborne Pathogen Risk and Postexposure Follow-up Algorithm

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[https://doi.org/10.1016/S0027-9684\(15\)30090-0](https://doi.org/10.1016/S0027-9684(15)30090-0)

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### Abstract

#### Disclaimer

Opinions expressed herein are those of the authors only.

#### Previous Presentation

This work was presented at the 58th Quarterly Grand Rounds at Fairview Developmental Center, Costa Mesa, California, on February 20, 2013.

Human bites may transmit bloodborne pathogens (BPs) by exposing the biter's oral mucosa to the bitee's blood and the bite wound to biter's saliva. Consequently, bites may require postexposure follow-up per the Occupational Safety and Health Administration (OSHA) BP standard. Literature reveals that BP transmission via bites is rare. Review of available records in our developmental center identified no biterelated BP transmission between 1993 and 2011. To avoid unnecessary testing while remaining OSHA-compliant, we propose an algorithm for selective follow-up of bites. Since hepatitis B virus can be transmitted by mucosal exposure to blood and, rarely, also by nonintact skin exposure to bloodfree saliva, all biters and bitees require hepatitis B follow-up. Since hepatitis C virus and human immunodeficiency virus (HIV) transmissions require "visible blood" exposure, and since saliva is usually bloodfree, risk of HCV-HIV transmission from biter to bitee is negligible. Therefore biters need HCV-HIV testing only after bloody saliva bites. Since biter's oral mucosa invariably gets exposed to bitee's blood (reverse exposure), all bitees should be tested for HCV-HIV infectivity. Our proposed algorithm may prevent harm and waste from unnecessary biter testing and venipuncture.



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### Keywords

injury; transmission; hepatitis; HIV/AIDS

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This research was funded by the State of California (Department of Developmental Services, Fairview Developmental Center).

The authors are grateful to Sailaja Reddy, MD, and Sienna Go, MD, for critical review of the manuscript; our medical staff for valuable practical points; Katrina Opendo for transcription assistance; and Thanhuyen Do, MD, Rebecca Apostol, PHN, Jeri Tirona, and Rose Chavez for records.

