Public Health Investigation of Kansas Residents Potentially Exposed to Blood-Borne Pathogens at Oklahoma Dental Practice, April 2013

Kansas Department of Health and Environment
Division of Health

Background

On March 28, 2013, the Oklahoma State Department of Health (OSDH) and the Tulsa Health Department publicly announced that approximately 7,000 dental patients of W. Scott Harrington, DMD were potentially exposed to blood-borne pathogens and that testing for HIV, hepatitis C (HCV), and hepatitis B (HBV) was recommended.[1] This announcement resulted from the discovery of numerous, longstanding improper infection control practices after an epidemiologic investigation of an acute case of hepatitis C was associated to a dental surgical procedure[2]. Patient records available from 2007 were used to notify current and previous patients of the situation and to offer free HIV, HCV, and HBV testing through the OSDH Public Health Laboratory (PHL) for persons who identified themselves as direct patients of Dr. Harrington's offices in Tulsa and Owasso, Oklahoma. OSDH notified other state health departments via the Epidemic Information Exchange (Epi-X) on Sunday, March 31, 2013, providing a summary of actions taken and OSDH contact information.

The Kansas Department of Health and Environment (KDHE) was notified on April 1, 2013 at 9:30 AM by the Montgomery County Health Department of an individual reporting to be a patient of an implicated clinic. KDHE immediately worked to coordinate with the OSDH to obtain a laboratory specimen collection protocol, intake summary, and a listing of potential Kansas residents who were notified through OSDH patient notification letters.

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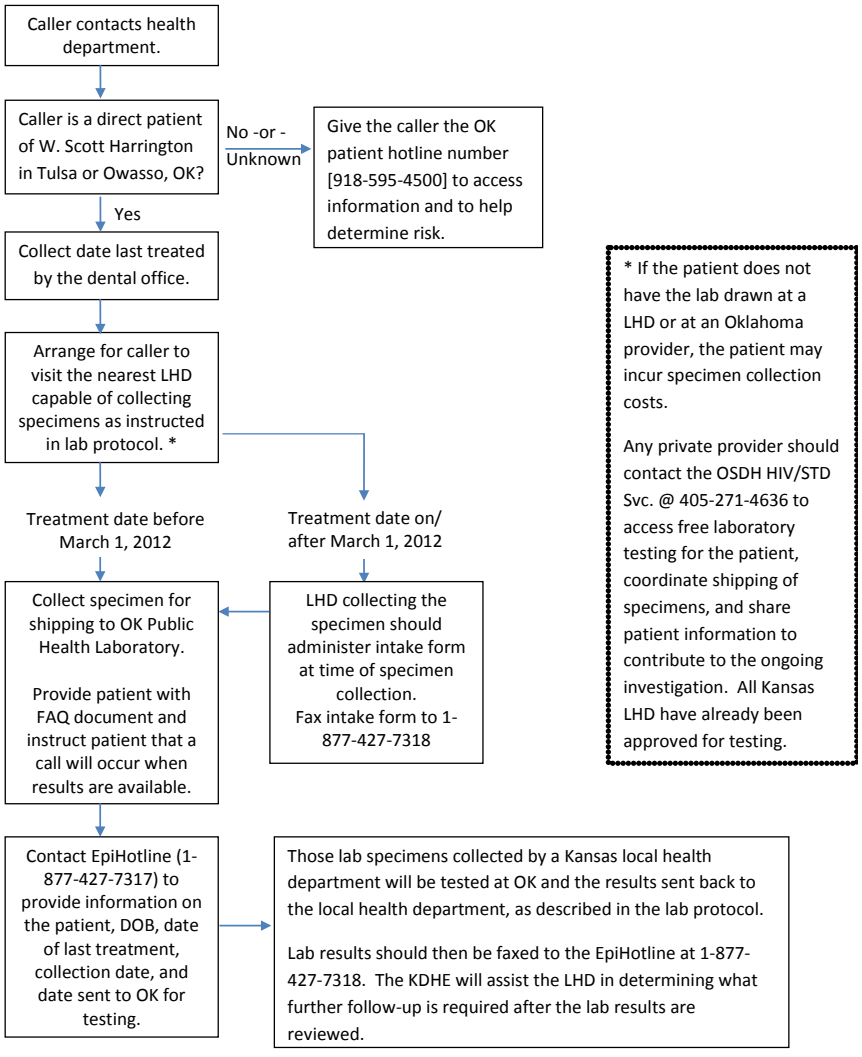
[1] Tulsa Health Department. Tulsa Health Department, Oklahoma State Department of Health and Oklahoma Board of Dentistry Investigate Tulsa Dentist. March 28, 2013. Accessed online June 14, 2013 at: http://www.tulsa-health.org/news/tulsa-health-department-oklahoma-state-department-health-and-oklahoma-board-dentistry#.UbsgB9hINkJ.

[2] Oklahoma State Department of Health. Public health Investigation of Tulsa Dental Practice | Situation Update 1. Accessed online June 3, 2013 at: http://www.tulsa-health.org/news/public-health-investigation-situation-update-1

Methods

An individual requiring testing was a person who reported that he or she was a direct patient of W. Scott Harrington in his Tulsa or Owasso clinic locations. All Kansas local health departments with residents listed as dental patients at the clinics from 2007 to the present were notified of the situation via telephone. Local health departments were provided instructions for triaging calls from interested individuals (Figure 1) and were provided with OSDH laboratory specimen collection protocols, an intake summary tool, and a frequently asked questions (FAQ) document. The objective was for the Kansas local health departments to provide specimen collection services and shipment of specimens to the OSDH-PHL. If a local health department was not equipped to collect the specimen, the patient was referred to the nearest local health department able to do so. Laboratory reports and completed intake forms were forwarded to the KDHE for review.

Figure 1: Kansas Local Health Department Investigation Process of Dental Clinic Patients Reporting to Local Health Department



Results

Forty patients of the affected dental clinics from the 2007 to present were listed as Kansas residents by OSDH. These patients resided in eight Kansas counties. Most Kansas patients resided in Montgomery County (n=29, 73%). Because the Montgomery County Health Department was not equipped to perform the specimen collection as required by the protocol, patients were referred to the Washington County Health Department in Bartlesville, Oklahoma.

Eight patients presented at Kansas local health departments for specimen collection. Five of these patients were included on the OSDH patient list. Two patients with potential exposure dates within 3-4 years had the correct Kansas address reported. Three Kansas patients were listed with previous Oklahoma addresses and had potential exposure within 5-6 years of the investigation. The remaining three patients that were not listed had potential exposure 7-11 years prior to the investigation. These patients were made aware of the investigation through family and media outlets.

Table 1: County of residence of dental clinic patients reported by OSDH as Kansas residents and number of specimens collected by Kansas local health departments, April 2013

Kansas County	*# Listed as a Kansas Resident*	*# Specimens Collected from Listed Kansas Residents*	*Total # Specimens Collected*
Chautauqua	4	*	*
Crawford	1	1	4
Labette	1	0	0
Montgomery	29	*	*
Sedgwick	2	1	4
Shawnee	1	0	0
Wilson	1	*	*
Wyandotte	1	0	0

** Local health department was not equipped to collect specimens.*

None of the patients tested through the Kansas local health departments tested positive for HIV, HBV, or HCV. OSDH reported no positive results for hepatitis or HIV in Kansas residents that were tested through providers in Oklahoma. No positive HIV or hepatitis results reported to the KDHE from private physicians and laboratories during the period of investigation of April 1 through June 30, 2013 were associated to the outbreak. None of the 40 potential Kansas residents were found in the Kansas reportable disease surveillance systems.

As of June 27, 2013, OSDH-PHL had tested 4,087 persons who were patients of Dr. Harrington's dental practice. Of these, 96 were patients tested from other states, local health departments

and private physicians. Of all patients tested, 77 patients tested positive for HCV, five for HBV, and four for HIV. [3]

Conclusions

As of June 2013, the epidemiological investigation continues in Oklahoma[3], but no potentially exposed patients residing in Kansas have been affected by the lax infection control practices at the clinics. The number of Kansas residents that were tested is likely more than the eight reported to KDHE, as many residents may have sought care in Oklahoma or with a private physician. Additional cases may be identified in the future, if some patients did not receive the initial notification of their potential exposure. Current state regulations and interstate reciprocal agreements regarding reportable diseases should result in any positive HIV, HBV or HCV laboratory reports being sent to KDHE for investigation.

Although transmission of bloodborne pathogens in dental health-care settings is rare, it can have serious consequences[4]. Standard infection control practices should be maintained to protect the patient and the healthcare providers, especially from the bloodborne viruses: HIV, HBV, and HCV. When practices are careless, the possibility of transmission is influenced by the type of procedure and presence of a viremia in the potential source. Equipment that is not properly sterilized after being used on a viremic patient can become a vector transmitting the virus to another patient. Incidents of acute hepatitis or the detection of HIV in a patient with no risk factors but with history of medical procedures should result in a swift investigation to determine the plausibility of transmission from a medical practice and, if plausible, to actively search for additional cases. This investigation was the result of such a finding.

Report by: Mary Ella Vajnar (Kansas Department of Health and Environment)
On: July 10, 2013

[3] Oklahoma State Department of Health. Public health Investigation of Tulsa Dental Practice | Situation Update 21. Accessed online July 8, 2013 http://www.tulsa-health.org/news/public-health-response-situation-update-21#.UdRHikwo7cs.
[4] Centers for Disease Control and Prevention. Guidelines for Infection Control in Dental Health-Care Settings. MMWR 2003; 52(RR17):1-61.

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