Evaluating North Carolina’s Policy for HIV and Hepatitis B Infected Healthcare Personnel Who Perform Invasive Procedures After 25 Years of Implementation

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BACKGROUND

In the early 1990's the highly publicized incident of a Florida dentist who infected several patients with HIV sparked widespread public fear and panic concerning transmission of HIV and other bloodborne pathogens by healthcare personnel (HCP) to their patients.

In North Carolina, there was a lack of consistent and appropriate treatment of HCP with known HIV positivity:
- Infection status leaked to the public
- Patient 'look backs' to test for HIV transmission
- Loss of employment for fear of transmission to patients

To address public concerns and assess the degree of risk infected HCP might pose to their patients, the CDC recommended infected personnel seek counsel from a panel of experts to evaluate risk of transmission and infection prevention measures.

In 1992, North Carolina enacted 18A NCAC 41A .0207 as a rule regarding management of HIV or Hepatitis B infected healthcare personnel:

1. All NC HCP who perform invasive procedures and are infected with HIV or Hepatitis B must self-notify the State Health Director (or designee).
2. HCP will be individually and confidentially assessed to determine transmission risk to patients based on the nature of their work.
3. If potential for transmission is significant, an expert review panel shall be convened to evaluate:
   - The practice, skills, and clinical condition of the HCP
   - Nature of the surgical, dental, or obstetrical procedures performed
   - Recommendations for the continuation of practice, including interventions for infection prevention

RESULTS

- Since implementation in 1992, reports have been received from 66 healthcare personnel
- 65% of reports were for Hepatitis B infected personnel
- The most common profession was dentistry (27% of reports)
- Students and post-graduate fellows composed 37% of reports
- Less than half of the reports required an expert panel to convene (47%)
- Of the 32 cases that required a panel, all but one required ≥ 1 infection prevention measure, the most common of which was infection prevention training (n=28).

CONCLUSIONS

- First evaluation of any state implemented policy for managing HIV/HBV infected healthcare personnel
- Zero incidents of provider to patient transmission are known to have occurred since implementation
- We found no breaches of confidentiality or loss of employment due to provider infection status in NC since enactment
- Few state resources are required to implement the rule

North Carolina's rule applying to infected HCP is a reasonable intervention that protects the public health and helps maintain the privacy and livelihood of practicing HCP living with HIV and/or Hepatitis B.

METHODS

To protect the privacy of self-reported infected HCP, all reports are kept in paper format, in a locked file cabinet, at the North Carolina Division of Public Health in Raleigh, NC.

Step 1: Manually abstract data from paper case files
- Year of decision by NC DPH
- Infected pathogen (HIV or HBV)
- Healthcare profession
- Professional status (student, post-graduate, professional)
- If an expert panel was convened and members of the panel
- Infection prevention measures required
- Other information

Step 2: Describe characteristics of personnel who self-reported, and state decisions for continuation of practice and required infection prevention interventions

Step 3: Summarize findings for publication in an academic journal

References:
Outbreaks associated with health care providers: 1985-2015

- **1985**: 3 cases of *Pseudomonas pickettii* bacteremia associated with a pharmacy technician at a Wisconsin hospital.
- **1992**: 45 cases of HCV infection associated with a surgical technician at a Texas ambulatory surgical center.
- **1999**: 26 cases of *Serratia marcescens* bacteremia associated with a respiratory therapist at a Pennsylvania hospital.
- **2004**: 16 cases of HCV infection associated with a certified-registered nurse anesthetist at a Texas hospital.
- **2006**: 9 cases of Achromobacter xylosidans bacteremia associated with a nurse at an Illinois hospital.
- **2008**: 5 cases of HCV infection associated with a radiology technician at a Florida hospital.
- **2009**: 18 cases of HCV infection associated with a surgical technician at a Colorado hospital.
- **2011**: 25 cases of gram-negative bacteremia associated with a nurse at a Minnesota hospital.
- **2012**: 45 cases of HCV infection associated with a radiology technician at hospitals in New Hampshire, Kansas, and Maryland.