1102 AUDIT OF REFERRALS FROM OCCUPATIONAL HEALTH SERVICE TO PUBLIC HEALTH ENGLAND NATIONAL SURVEILLANCE SCHEME FOR OCCUPATIONAL EXPOSURE TO SIGNIFICANT BBV

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10.1136/oemed-2018-ICOHabstracts.965

Introduction Newcastle OHS submits data to the voluntary Public Health England (PHE) significant exposures surveillance system (SigOcc). Data from the Eye of the Needle report (2004 – 2013) showed that there were 4830 significant exposures to a blood borne virus (BBV) reported in healthcare workers and that there was an increase in reported numbers over this time period.[1]

The audit aim was to review the quality of data contained in forms returned to NewcastleOHS from PHE between January 2010 and December 2015 following initial submissions.

Methods Cycle 1 – A retrospective audit was carried out to analyse the data collected from PHE forms returned between January 2010 and December 2015. Significant exposures were documented on PHE paper forms which were analysed against the above standards

Cycle 2 – A prospective audit of data between December 2015 and December 2016 was carried out. Each case was allocated to a clinician who was responsible for reviewing results and completing the forms at 0, 6 and 24 weeks. This data was collected and entered electronically on forms for submission by email

Result Cycle 1–26 employees had been reported to SigOcc as having had a significant exposure to a BBV detected source. Follow up was completed in 80%

Cycle 2–21 employees had been reported to OHS as having has a significant exposure to a BBV detected source (December 2015 – 16). On review of these exposures, 86% (18) were reported to SigOcc as data indicated a very low risk exposure in 3 cases. Follow up was 100% in cycle 2

Discussion HIV exposure in cycle 1 of the audit was higher than reported in the Eye of the Needle report at 54%. In cycle 2 the rate was 33%, similar to published studies. There were 14 exposures to HIV reported to SigOcc in the North East in 2014–15. For HIV infection standard reporting levels were based on HIV antibody detection. HIV PCR levels were not always reported (54% had documented viral loads or CD4 counts). Sig Occ recommends referral of all exposures to HIV antibody detected body fluids. This may need review given new treatments and viral suppression.

Hepatitis C exposure in cycle 1 of the audit was 34%, increasing to 48% in cycle 2, similar to reported rates. There were 18 reported exposures to Hepatitis C to SigOcc in the North East in 2014– 5 (51%). Hepatitis C PCR was documented in 67% of cases in cycle 1. SigOcc recommend referral of all hepatitis C antibody detected exposure, however this may require review given viral suppression treatment.

Hepatitis B exposures were 8% in cycle 1% and 19% in cycle 2. There were 5 reported cases to SigOcc in the North East in 2014 – 15. Hepatitis B testing appears to be more complete with hepatitis B surface antigen levels and viral DNA level available in known exposure cases.

646 EXPOSURE TO ALDEHYDES AMONG HEALTH CARE WORKERS IN A LARGE TERTIARY HOSPITAL IN CAPE TOWN, SOUTH AFRICA

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10.1136/oemed-2018-ICOHabstracts.966

Introduction High-level disinfectants such as ortho-phthalaldehyde (OPA) have increasingly been linked to various adverse health outcomes including occupational asthma, contact dermatitis and anaphylaxis. However, environmental exposure characterisation studies of aldehydes such as OPA, are limited. The aim of this study was to conduct a detailed exposure characterisation study of health care workers (HCWs) exposed to aldehydes.

Methods A total of 269 full-shift passive personal samples were collected from HCWs randomly selected from 17 different clinical departments in a tertiary hospital. Passive sampling used TraceAir AT580 monitors (Assay Technology, Livermore, CA), which were analysed for OPA and formaldehyde.

Result OPA was detectable in 6 (2%) samples from gastrointestinal (GI) unit, with a median of 0.009 ppm (range: 0.005–0.027). HCWs with detectable OPA levels had a longer duration of OPA use (OR=1.28; 95% CI: 1.10 to 1.50). Formaldehyde was detectable in 103 (38%) samples with a median of 0.004 ppm (range: 0.003–0.027). Three (1%) samples had formaldehyde levels higher than the NIOSH recommended exposure limit (REL) of 0.016 ppm time-weighted average.

Discussion In this study, OPA levels were on average 10-fold higher than in similar settings elsewhere. Detectable OPA in the GI unit corroborates findings of workplace inspections conducted during the exposure measurements, which found high level of OPA usage among sterilising operators and registered nurses. Formaldehyde levels were on average 10-fold lower than studies in pathology and anatomical laboratories elsewhere but were comparable to average levels in US general buildings. The most likely source of exposure is probably related to exposure to formaldehyde (10%) solution used for specimen preparation in most departments, residue evaporation from formaldehyde contaminated surfaces and other general indoor sources. The study concluded that mean detectable exposures to OPA are higher and more isolated than more widespread low-level formaldehyde exposures.

835 OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT IN THAI HOSPITAL

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10.1136/oemed-2018-ICOHabstracts.967

Introduction Statistic showed that hospital is the most hazardous workplace. More than 3 00 000 healthcare workers were