

HEPATITIS C VIRUS (HCV) TRANSMISSION IN THE HEMODIALYSIS SETTING: IMPORTANCE OF INFECTION CONTROL PRACTICES AND ASEPTIC TECHNIQUE.

Nicola Thompson and Stephanie Bialek. CDC, Atlanta, GA. USA

Despite heightened infection control precautions recommended for dialysis facilities, outbreaks of HCV infection have occurred in recent years. To identify risk factors and practices associated with HCV transmission, we summarized four outbreak investigations of HCV infection.

Patients were tested for markers of HCV infection, epidemiologic and lab studies were conducted to identify risk factors for incident HCV infection, and assess the relatedness of HCV strains among chronic and incident cases.

Epi and lab findings confirmed that chronically infected patients within each unit were the source of the HCV outbreak.

Table: Risk factors, practices associated with incident infection

Outbreak (N patients)	N Chronic HCV / N Incident HCV (%)	Risk Factors*	Practices§
A (51)	11 / 7 (17.5%)	A	1,2
B (95)	34 / 5 (8%)	A, B	1,2,3
C (24)	1 / 3 (13%)	C	3
D (64)	12 / 7 (13%)	B, C	1,2,3

***Epidemiologic risk factors associated with incident HCV infection** A=Dialyzed on machine after patient with chronic infection; B=Receipt of IV meds from a multi-dose vial;

C=Dialyzed on the same shift at a station next to patient with chronic HCV infection. **§ Practices identified at the hemodialysis unit** 1=Improper storage/administration of IV

meds; 2=Failures to wipe down environmental surfaces between patients; 3 =Use of a mobile medication or supply cart.

Contamination of IV medication vials, through re-entry and re-use likely contributed to HCV transmission in these units.

Dialysis providers should strive to use single dose vials, and ensure they are dedicated for use on a single patient and used one time only. Strict adherence to all recommended hemodialysis-specific precautions is necessary to prevent patient-to-patient transmission of HCV.