Title

When a Home is Not a Home: MultiDrug-Resistant Organism (MDRO) Colonization and Environmental Contamination in 28 Nursing Homes (NHs)

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1694. Treatment as Prevention for Hepatitis C (TraP HepC). A Real-world Experience from the First 12 Months of a Nationwide Elimination Program in Iceland

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Session: 189. Hepatitis B and C Across the Lifespan
Friday, October 6, 2017: 8:30 AM

Background. Hepatitis C virus (HCV) infection is associated with significant morbidity and mortality. Iceland, an island with a population of 330,000 has a HCV seroprevalence of 0.3% and an estimated total of 800–1000 patients. There is good access to health care among people who inject drugs (PWID) and Iceland thus serves as an ideal setting for a proof of concept intervention, aiming for elimination of the disease as a public health threat. If elimination is to be achieved PWID, who are key drivers of transmission, need to be a focus of treatment scale up.

Methods. All patients in the country infected with HCV were offered direct-acting antiviral agents (DAAs) starting in 01/2016. The regimens are chosen according to national guidelines; SOF/LDV +/−RBV through October 2016 and SOF/VEL +/−RBV thereafter. People with recent injection drug use (IDU), prisoners and patients with advanced liver disease are prioritized. PWID receive additional support to facilitate compliance. Various strategies are employed to enhance case detection and harm reduction. The goal is to initiate treatment for every patient in Iceland within 36 months (end-2018), aiming for elimination of domestic transmission of HCV.

Results. Twelve months after launching the nationwide program 527 patients had been evaluated, 53–66% of the estimated total patient population. The mean age is 42 years (range, 17–70 years, 2 males to every female). The reported main route of infection was IDU (90%). At the time of evaluation, 33% reported recent (within 6 months) IDU, 6% were homeless, and 5% in prison. Stimulants were the preferred IV drug among 84% of PWID but opiates by only 14%; overall 15% were receiving opiate substitution therapy (OST). During the first 12 months of the study period treatment with DAAs was initiated in 480 patients and 322 were scheduled to complete protocol. Drop-out rate is 6.5%. Sustained virological response at 12 weeks (SVR12) for the entire group, including patients who dropped out or are lost to follow-up is 90%. It is significantly lower among the homeless (60%) and active IDU (83% vs. 93%, $P = 0.007$).

Conclusion. A relatively large proportion of HCV infected patients in the community, including people actively injecting drugs, can be initiated on treatment in a short period of time. Current drug use does not preclude treatment success.

Disclosures. **M. Gottfredsson**, Gilead: Grant Investigator and Scientific Advisor, Consulting fee and Research support; Astellas: Consultant, Speaker honorarium

1695. Maternal Risk Factors Associated with Inadequate Testing and Loss to Follow-up in Infants with Perinatal *Hepatitis C* Virus Exposure

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Session: 189. Hepatitis B and C Across the Lifespan
Friday, October 6, 2017: 8:30 AM

Background. Lack of adequate testing and follow-up in infants born to hepatitis C virus (HCV) infected mothers continue to be a major challenge. There are multiple risk factors associated with this low rate of testing and follow-up including maternal, healthcare-related, and social factors. We sought to identify maternal risk factors that are associated with low HCV testing and follow-up in perinatally exposed infants.

Methods. In a retrospective cohort study, all HCV-infected pregnant women and their infants were reviewed. The study period expanded from June 1993 to May 2016. Medical records were reviewed for maternal characteristics and risk factors that could be associated with inadequate testing and loss to follow-up in infants with perinatal HCV exposure.

Results. During the study period, medical records of 407 mothers and their infants were reviewed. Only 26.5% (108/407) of all infants had adequate testing and follow-up for HCV. Among all infants, history of maternal intravenous drug use (IVDU) was significantly higher in infants with inadequate HCV testing than infants who were adequately tested [88% (193/218) vs. 76% (70/92) respectively; $P = 0.005$]. Infants who were adequately tested for HCV had a higher percentage of mothers on methadone maintenance therapy during pregnancy than infants who were not adequately tested [53% (35/66) vs. 34% (65/186) respectively; $P = 0.010$]. Also, infants with mothers who had HCV care were more likely to be adequately tested than infants whose mothers did not have HCV care [54% (56/102) vs. 41% (106/255), respectively; $P = 0.022$]. HCV transmission rate among infants with adequate testing was 11.1% (12/108).

Conclusion. Infants born to HCV infected mothers continue to have suboptimal testing. Maternal history of IVDU is associated with inadequate testing and loss to follow-up among infants exposed perinatally to HCV. Whereas, maternal methadone maintenance therapy during pregnancy, and maternal HCV medical care are associated with better follow-up. Screening pregnant women with HCV infection for history of IVDU and linking them to drug treatment centers as well as to HCV medical care may improve testing and follow-up in infants with perinatal HCV exposure.

Disclosures. **All authors:** No reported disclosures.

1696. When a Home is Not a Home: MultiDrug-Resistant Organism (MDRO) Colonization and Environmental Contamination in 28 Nursing Homes (NHs)

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Session: 190. Resist! MDROs in Healthcare
Friday, October 6, 2017: 2:00 PM

Background. The majority of healthcare-associated infections due to MDROs occur in the post-discharge setting. Understanding MDRO spread and containment in NHs can help identify infection prevention activities needed to care for vulnerable patients in a medical home setting.

Methods. We conducted a baseline point prevalence study of MDRO colonization in residents of 28 Southern California NHs participating in a decolonization trial. In Fall 2016, residents were randomly sampled to obtain a set of 50 nares and skin (axilla/groin) swabs from each NH. Nasal swabs were processed for MRSA and skin swabs were processed for MRSA, VRE, ESBL, and CRE. In addition, environmental swabs were collected from high touch objects in resident rooms (bedrail, call button/TV remote, door knobs, light switch, bathroom) and common areas (nursing station, table, chair, railing, and drinking fountain).

Results. A total of 2,797 body swabs were obtained from 1400 residents. Overall, 48.6% ($N = 680$) of residents harbored MDROs. MRSA was found in 37% of residents (29.5% nares, 24.4% skin), followed by ESBL in 16% (**Table 1**). Resident MDRO status was only known for 11% of MRSA (59/518), 18% ESBL (40/228), 4% VRE (4/99), and none of the CRE (0/13) carriers. Colonization did not differ between long stay (48.8%, 534/1094) vs. post-acute (47.7%, 146/306) residents (P = NS), but bedbound residents were more likely to be MDRO colonized (58.7%, 182/310) vs. ambulatory residents (45.7%, 497/1088, $P < 0.001$). A total of 560 environmental swabs were obtained with 93% of common areas and 74% of resident rooms having an MDRO+ object with an average of 2.5 and 1.9 objects found to be contaminated (Table 2).

Conclusion. One in two NH residents are colonized with MDROs, which is largely unknown to the facility. MDRO carriage is associated with total care needs, but not long stay status. Environmental contamination in resident rooms and common areas is common. The burden of MDRO colonization and contamination is sufficiently high that universal strategies to reduce colonization and transmission are warranted.

Table 1. MDRO Colonization in Residents of 28 Nursing Homes

Body Site	# Swabbed	Any MDRO	MRSA	VRE	ESBL	CRE
Nares	1,397	29%	29%	-	-	-
Axilla/Groin	1,400	39%	24%	7%	16%	1%
All Body Sites	**2,797**	**49%**	**37%**	**7%**	**16%**	**1%**

Table 2. Environmental Contamination in 28 Nursing Homes

Common Area Objects						
	# Swabbed	Any MDRO	MRSA	VRE	ESBL	CRE
Nursing Station Counter or Cart	28	57%	43%	32%	0%	0%
Table (from dining or activity room)	28	54%	39%	29%	4%	0%
Chair (from dining or activity room)	28	46%	29%	18%	0%	0%
Hand rail (hallway)	28	61%	32%	32%	4%	0%
Drinking Fountain or Drinking Station	28	32%	25%	11%	0%	0%
Any Object	**140**	**50%**	**34%**	**24%**	**1%**	**0%**
Resident Room Objects						
	# Swabbed	Any MDRO	MRSA	VRE	ESBL	CRE
Bedside Table & Bedrail	84	55%	31%	29%	5%	0%
Call Button & TV Remote & Phone	84	35%	23%	15%	1%	0%
Door Knobs	84	33%	24%	12%	1%	0%
Light Switch	84	26%	18%	8%	1%	0%
Bathroom Rail & Sink & Flush Handle	84	38%	23%	20%	5%	1%
Any Object	**420**	**37%**	**24%**	**17%**	**3%**	**0.2%**

Disclosures. **J. A. McKinnell**, Allergan: Research Contractor, Scientific Advisor and Speaker's Bureau, Consulting fee, Research support and Speaker honorarium; Achaogen: Research Contractor, Scientific Advisor and Shareholder, Research support; Cempra: Research Contractor and Scientific Advisor, Research support; Theravance: Research Contractor, Research support; Science 37: Research Contractor, Salary; Expert Stewardship, LLC: Board Member and Employee, Salary; Thermo Fisher: Scientific Advisor, Salary; 3M: Receipt of contributed product, Conducting studies in healthcare facilities that are receiving contributed product; Clorox: Receipt of contributed product, Conducting studies in healthcare facilities that are receiving contributed product; Sage Products: Receipt of contributed product, Conducting studies in healthcare facilities that are receiving contributed product; Xttrium Laboratories: Receipt of contributed product, Conducting studies in healthcare facilities that are receiving contributed product; **L. 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1697. Prospective Surveillance and Rapid Whole-Genome Sequencing Detects Two Unsuspected Outbreaks of Carbapenemase-Producing *Klebsiella pneumoniae* in a UK Teaching Hospital

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