Table 1. Continued

Concordant (n = 135)	
Klebsiella pneumoniae, Acinetobacter baumannii	*Klebsiella pneumoniae*
Coagulase-negative staphylococcus	*Staphylococcus lugdunensis, Candida parapsilosis, Pediococcus species*

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

93. Home Environmental Contamination Is Associated with Community-associated Methicillin-resistant *Staphylococcus aureus* Re-colonization in Treated Patients

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Session: 30. It's not just Bones: Skin and Bones
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Background. Strategies to interrupt household transmission of community-associated methicillin-resistant *Staphylococcus aureus* (CA-MRSA) that target human colonization show mixed results. Our aim was to determine whether home environmental contamination and pet carriage with MRSA were associated with re-colonization or persistent colonization of index patients diagnosed with CA-MRSA skin or soft-tissue infection (SSTI).

Methods. Index patients from a randomized controlled trial (NCT00966446) that tested household-wide decolonization of people were eligible to participate in this substudy. Before randomization, eight environmental sites and all pets were sampled in the home. Patients were treated by their physician for the initial SSTI between diagnosis (visit 0) and the home visit (visit 1). They provided swabs every 2 weeks for 3 months (7 visits). After broth-enrichment culture, MRSA isolates were PCR-confirmed and *spa*-typed.

Results. Of 88 index patients recruited from the main trial, 64 (73%) provided swabs for ≥3 visits and were included in this analysis. At visit 1, 41 (64%) households were MRSA contaminated and 6 (9%) had MRSA-positive pet(s). All MRSA-positive pets lived in homes with MRSA environmental contamination. After visit 1, 42 (66%) index patients and their household members were block-randomized to nasal mupirocin and chlorhexidine body wash decolonization. Thirty-seven (58%) index patients had two consecutive negative swabs (de-colonized); 13 (35%) of these later were MRSA-positive (re-colonized). Patients with home contamination had higher rates of re-colonization than those without (Cox proportional hazard ratio 6.0 [95% CI: 1.2, 30.6], $P < 0.03$). Persistent colonization (all or all but one swab positive) was identified in 6 (9%) of index patients and was associated with identification of matching *spa*-types in environmental and subsequent human MRSA isolates ($P < 0.05$).

Conclusion. In patients with MRSA SSTI, MRSA-contaminated homes, and potentially MRSA-positive pets, are associated with re-colonization and persistent colonization. Future studies are needed to determine whether environmental decontamination can improve the success of household decolonization interventions.

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

124. Current Epidemiology of Serogroup W Meningococcal Disease—United States, 2010–2015

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Session: 40. Adult Central Nervous System Infection
Thursday, October 5, 2017: 10:30 AM

Background. Serogroup W (NmW) meningococcal disease is a rare but severe infection. Following an NmW outbreak after the Hajj in 2000, NmW disease, predominantly caused by sequence type (ST)-11 clonal complex (cc), rapidly increased in South Africa, South America, and the UK. We describe NmW meningococcal disease epidemiology in the USA during 2010–2015.

Methods. Data were collected from the National Notifiable Diseases Surveillance System, Active Bacterial Core surveillance, and state health departments. Isolates were serogrouped via slide agglutination and real-time polymerase chain reaction. For cases lacking a serogroup result at CDC, the state result was used. Case-fatality ratios (CFR) were calculated using the proportion of cases with known outcomes as the denominator. cc and ST were determined using multilocus sequence typing (MLST).

Results. From 2010 to 2015, 3,504 meningococcal disease cases were reported to CDC; 2,976 (85%) had a serogroup result, of which 290 (10%) were NmW. Although the number of NmW cases reported annually remained fairly stable (range: 40–57), the total number of reported meningococcal disease cases decreased by 60%, and the proportion of cases due to NmW increased from 6% (42/830) in 2010 to 12% (40/332) in 2015. The majority of NmW cases were reported from five states: Florida (n = 106), California (n = 31), New York (n = 25), Georgia (n = 19), and Oregon (n = 11). Half of people with NmW disease were male, 185 (64%) were white, and 84 (29%) were Hispanic. The median age was 51 years (interquartile range: 26–70). Overall, 20% (52/259) of NmW cases were fatal, compared with CFRs for serogroups B (15%), Y (18%), or C (24%). NmW CFR was highest among adults aged 50–59 years (38%). MLST results were available for 119 (41%) of NmW cases: 76 (64%) were cc11, 40 (34%) were cc22, and 1 each were cc23, cc32, and an unassigned cc. cc appeared to be geographically associated: cc11 was concentrated in Florida and Georgia, while cc22 predominated on the West coast. Within cc11, the majority of isolates (86%) were ST-11, and within cc22 the majority (73%) were ST-22.

Conclusion. A rapid increase in NmW disease has not been observed in the USA. Most NmW cases were reported in a limited number of states, with geographic differences in clonal complex.

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125. Increased Risk of Invasive Meningococcal Disease Associated with Primary and Secondary Immunodeficiency

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Session: 40. Adult Central Nervous System Infection
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Background. Risk of invasive meningococcal disease (IMD) is increased for persistent complement deficiency and HIV infection. However, risk associated with other primary and secondary immunodeficiency is unknown.

Methods. Nationwide case–control study of adults aged >18 years. Cases and matched controls were identified by registry linkage. Primary and secondary immunodeficiencies diagnosed prior to IMD were based on International Classification of Disease (ICD), eight or tenth revision. Odds ratios (OR) with 95% confidence intervals (CI) were estimated by conditional logistic regression after adjustment for sex, age, and the year of IMD.

Results. We identified 2,179 IMD cases (46% male) with a median age of 44 years (interquartile range: 24–63 years). Increased risk of IMD was associated with HIV infection (OR 10.03 [95% confidence interval (CI), 2.91–34.66]), splenectomy/splenic resection (OR 6.88 [95% CI, 3.9–14.82]), solid organ transplantation (SOT) (OR 20.00 [95% CI, 5.00–79.96]), hemolytic anemia (OR 7.78 [95% CI, 2.90–20.90]), antibody deficiency (OR 6.67 [1.11–39.90]) and autoimmune diseases (OR 1.80 [95% CI, 1.44–2.14]). Primary immunodeficiency overall was not associated with an increased risk (OR 1.43 (95% CI, 0.61–3.36)).

Conclusion. This large study of Danish adults with IMD over four decades showed an increased risk of IMD associated with HIV infection, SOT, asplenia, hemolytic anemia, antibody deficiency, and autoimmune disease ranging from 2- to a 20-fold increased risk. Vaccination may be warranted in these populations.

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126. Use of Adjunctive Steroids and Incidence of Delayed Cerebral Venous Thrombosis in Adults with Bacterial Meningitis

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Background. Bacterial meningitis is associated with significant morbidity and mortality. Adjunctive steroids decrease mortality in adults with meningitis due to *Streptococcus pneumoniae*but its use has been recently linked to the development of delayed cerebral thrombosis (DCT). The purpose of our study was to determine the utilization of adjunctive steroids and its incidence.