The Common, Weird and Wacky Findings of the Canine Scent Detection Program in Fraser Health and Vancouver Coastal Health Authorities

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Background

- Infection Prevention and Control (IPC) programs look for novel approaches to reduce Clostridium difficile (CD) infections and their associated morbidity and costs
- In 2016, Vancouver Coastal Health (VCH) developed an innovative Canine Scent Detection (CSD) program to detect environmental reservoirs of CD in healthcare settings
- Fraser Health (FH) contracted with VCH to deploy the dogs two days a week in FH acute care sites

Results

Between December 2016 and April 2019

- 16 acute care sites were visited in the two health authorities
- >1200 searches have been conducted in areas/units
- >3,000 total alerts across both health authorities

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Common, weird and wacky findings

<table>
<thead>
<tr>
<th>Top 6 Alerted Locations</th>
<th>Top 6 Alerted Objects</th>
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<tbody>
<tr>
<td>Hallways</td>
<td>PPE Cart</td>
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<tr>
<td>Nursing Stations</td>
<td>Vitals Monitoring</td>
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<tr>
<td>Clean Storage</td>
<td>Equipment</td>
</tr>
<tr>
<td>Staff Rooms</td>
<td>Wheelchairs</td>
</tr>
<tr>
<td>Patient Rooms</td>
<td>Charts and Chart Rack</td>
</tr>
<tr>
<td>Washrooms</td>
<td>Linen Cart</td>
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Examples of improvement initiatives stemming from the CSD program include

- Daily cleaning and disinfection of patient charts
- Cleaning and disinfection of shoe racks in staff locker rooms
- A VCH/FH joint quality improvement project regarding linen and linen carts

Program methods

- Search
  - Dog is “primed” by K9 handler
  - Search team meets at location
  - Search begins
  - Alerts recorded

- Remediation
  - Item labelled
  - Item cleaned/disinfected or discarded

- Unit Discussion
  - In-the-moment teaching and feedback
  - Discussions on process gaps
  - Action plans developed

- Site Discussion
  - Search data analyzed and shared with site
  - Discussion on process gaps
  - Remediation plans developed

- Regional Review
  - Trends reviewed
  - Gaps/areas of concern investigated
  - Regional remediation plans/guidelines developed

Discussion

The alerts have

- Reinforced the importance of hand hygiene, de-cluttering and replacing damaged equipment
- Engaged front-line staff and unit management in discussions regarding infection control
- Provided opportunities for collaboration in addressing joint areas of concern across health authorities

The CSD program has helped shift the conversation regarding infection prevention and control by

- Providing visual reminders of IPC best practices
- Highlighting the modes of CD transmission in a non-punitive way
- Engaging and empowering front-line staff, unit managers, environmental services staff, as well as other stakeholders

The CSD program has identified

- Reservoirs of contamination, in both expected and unexpected locations
- Gaps in existing processes for cleaning and disinfection
- Issues with equipment design and location

Lessons learned

- The success of the program is dependent on a team approach
- Stakeholders at the unit, site and regional level need to be engaged prior to the first search
- The program has been well received by staff and been the catalyst for multiple improvement initiatives
- There is a growing demand for the program, and in order to meet that demand, program capacity and resources must also grow