

See the forest for the trees: an outbreak tracking pilot project

See the Forest for the Trees: An Outbreak Tracking Pilot Project

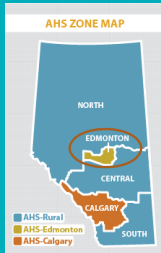
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June 21, 2019



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Edmonton Zone Continuing Care




- 3 Infection Control Professionals (ICP) - 2.6 FTE
- 3 streams of care:
 - Long-term Care
 - Supportive Living
 - Home Care
- Over 100 sites
 - Mainly contracted partners

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Outbreak Visits

- Influenza-like illness (ILI) outbreaks done by ICP
- Gastrointestinal (GI) outbreaks done in conjunction with Environmental Public Health




Consist of walking tours reviewing outbreak control strategies:

- Ill residents and IPC precautions
- Environmental cleaning
- Common areas and dining rooms
- Routine practices

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ILI & GI Case and Outbreak Definitions

ILI Case Definition*	ILI Outbreak Definition (Hospitals and Residential Institutions):
<p>Acute onset of respiratory illness with  and cough and with one or more of the following:</p> <ul style="list-style-type: none"> • sore throat • joint pain (arthralgia) • muscle aches (myalgia) • severe exhaustion (prostration) <p>which is likely due to influenza. In children under age 5, gastrointestinal symptoms may also be present. In patients under age 5 or 65 years and older, fever may not be prominent.</p>	<p>2 or more cases of ILI within a 7 day period, with a common epidemiological link (e.g., same location or same care giver, and evidence of healthcare-associated transmission within the unit or facility), of which at least one is a laboratory confirmed case.</p> <p><i>In practice, AHS uses an adapted ILI outbreak definition whereby there is no requirement for a laboratory confirmed case.</i></p>


Per the Edmonton Zone Medical Officer of Health, Continuing Care uses a more sensitive ILI case definition that does not require fever.

GI outbreak is 2 or more cases within 48 h with common epidemiological link

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2017-18 Outbreak Season

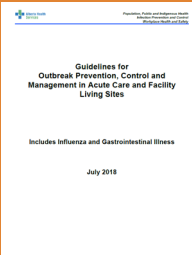


- Frequency
- Severity
- Duration

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Outbreak Pilot Project



- Fillable outbreak control strategy checklist*
- Electronic tracking spreadsheet
- Quarterly reporting

*Based on public health outbreak manuals

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Outbreak Issue Tracking Pilot - GI and ILI illness

Date of Visit: _____ Outbreak Type: [SELECT] _____

Site: [PC] [SELECT] _____

Yes No NA General

- Signage visible at the front door notifying visitors of outbreak.
- Hand sanitizer available by front entrances.
- Signage or other cueing on resident door alerts staff that PPE is required.
- If residents are placed on appropriate precautions.
- Appropriate PPE is available at point of care. If not, _____ missing.
- For ILI in a shared room, 2 meters is maintained between residents OR the curtains are closed.
- For GI in a shared room, enhanced cleaning of the bathroom is being done.
- If residents are encouraged to stay in their rooms during infectious period.
- Group activities have been canceled per Public Health recommendations.
- Equipment is dedicated to ill residents (e.g. slings, transfer belts).
- Cohorting is being done correctly.
- Sufficient access to hand hygiene supplies throughout the facility.
- Multi-touch items have been removed from common areas (e.g. brochures, magazines, puzzles, card games).

Visitors

- Visitors are visiting one resident at a time.
- Visitors of ill residents are advised on proper hand hygiene and PPE use.
- Residents/babysitters are discouraged from self-service in kitchen areas during the outbreak. Self-service coffee, snacks and juice have been discontinued during the outbreak.

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Yes No NA

- PPE visits have been deferred during the outbreak.

Dining

- Ill residents are eating their meals in their rooms.
- Nursing staff are delivering meal trays to ill residents.
- Residents are helped with hand hygiene immediately prior to meals (discussed offer of hand hygiene being provided).
- Tables are pre-set within 30 minutes of mealtimes. (N/A if access to the dining area is restricted).
- Communal items have been removed from tables (e.g. salt, pepper, sugar etc.).
- If tablecloths and/or place mats are used they are being changed or cleaned and disinfected after every meal.

Staff

- Staff are completing hand hygiene for all required moments.
- All required PPE is being used by staff when entering ill residents' rooms.
- If staff are sent home and remain home while symptomatic/contagious (ILI acute stage/febrile stage is over; GI symptom free for at least 48 hours).
- Shared equipment is being cleaned between clients.

Housekeeping

- Additional high touch surface cleaning is occurring at least two times per day (e.g. callings, elevator buttons, light switches, railings, arms and back edge of chairs).
- A two-step process for cleaning is being done.
- Staff are following the Low Level Disinfectant's recommended contact time.
- The facility is using a product with a DDM and for GI illness a label claim for effectiveness against Norovirus (e.g. accelerated hydrogen peroxide or bleach solution).

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Yes No NA

- Housekeeping staff are cleaning using a clean to dirty process.
- Ill residents' rooms are cleaned using a terminal-type clean once the resident is off precautions.
- Resident laundry is being cleaned between uses.
- Housekeepers who use multiple-use gloves are cleaning and disinfecting them between resident rooms.

Confirmed Infections

- For ILI and/or GI, prophylaxis either provided, not discussed prior to the outbreak. Only indicated staff or staff on prophylaxis are working.
- Prophylaxis is being offered to all residents (individual refusal are not an issue).
- Staff are wearing N95 respirators during aerosol generating procedures (AGPs), endotracheal suction, chest physical therapy, trache care etc. for ill residents.
- Roommate is not present during aerosol generating procedures for ill residents.

General Practices

- Non-essential services such as the hair salon have been closed as directed by Public Health for the duration of the outbreak.
- For ILI and/or GI, a process for self-reporting of illness is in place.

Other _____

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Electronic Tracking

Site	Type of Facility	Type of Outbreak	Organism	Start Dat	End Dat	Duration (Days)	Date of Visit
	FL	ILI	Enterorhinovirus	11-Jul-18	22-Jul-18	11	10-Jul-18
	FL	ILI	Enterorhinovirus	17-Jul-18	23-Jul-18	6	19-Jul-18
	FL	GI		15-Jul-18	18-Aug-18	31	7-Aug-18
	SL	GI	Norovirus	7-Aug-18	13-Aug-18	6	7-Aug-18
	SL	ILI		13-Aug-18	29-Aug-18	16	15-Aug-18
	FL	GI	Norovirus	20-Aug-18	29-Aug-18	9	21-Aug-18
	SL	GI	Norovirus	20-Aug-18	28-Aug-18	8	21-Aug-18
	SL	ILI	Enterorhinovirus	7-Sep-18	20-Sep-18	13	11-Sep-18
	SL	ILI		13-Sep-18	18-Sep-18	5	18-Sep-18

Quarterly data analysis:

- Minimum, maximum, and mean durations
- By stream of care
- By type of outbreak
- Common outbreak control strategy deviations
- Identify sites with frequent outbreaks

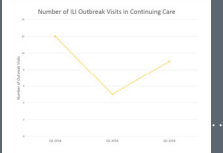
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Quarterly Reporting

3rd Quarter Executive Summary

- Initial Outbreak visits in Continuing Care:
 - IPC conducted 25 outbreak visits in Q3
 - 14 gastrointestinal (GI) and 9 influenza-like virus (ILI)
 - An additional 3 outbreaks did not receive initial outbreak visits
 - 9 outbreak visits were completed in Q3
- Duration of Outbreaks:
 - GI
 - Median = 8 days (5 days in Q3)
 - Range = 2 to 23 days
 - ILI
 - Median = 8 days (12 days in Q3)
 - Range = 6 to 15 days



3rd Quarter Deviations from Routine Practices

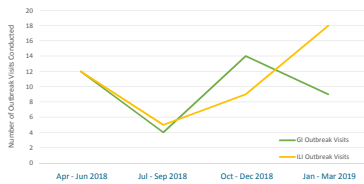
- Q3 common deviations from Routine Practices:
 - Did not have all appropriate PPE available (e.g. eye protection) (1)
 - Low level disinfectant with a Druz Identification Number or norovirus claim not used (1)
 - Appropriate contact time not observed (2)
 - Missed moments of hand hygiene were observed (1)**
 - No additional precautions signage outside of 11 resident rooms (2)

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After One Year of Data Collection

Number of Outbreak Visits Conducted per Fiscal Quarter 2018-19



- 111 Outbreaks* from April 1, 2018 to Mar 31, 2019
- 83 Outbreak Visits to 51 sites
 - 39 GI**
 - 44 ILI

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* 1 outbreak re-opened several days after closing
 ** 1 site required a repeat visit due to duration of outbreak

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“Never collect data for the sake of collecting data.”
~ Dr. A Uma Chandran

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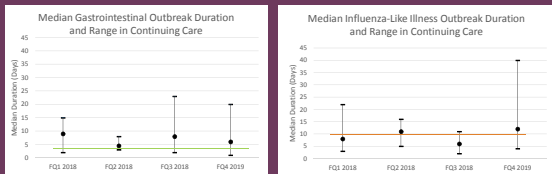
We Have Established a Baseline - What's next?

1. Set targets (i.e. what is success?)
2. Review data collected during 2018-2019 outbreak season
3. Implement interventions.
4. Collect and analyze post-intervention data.

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Each Outbreak Season is Unique, What Are Indicators of Success?



- Range
- Median duration goals:
 - GI: 4
 - ILI: 10

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Focused interventions

- Based on deviations identified on outbreak checklists
- For sites with prolonged duration of outbreak

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Common Discrepancies – Outbreak Control Strategies

- Multi-touch items were not removed from:
 - Common areas (37)
 - Dining tables (16)
- Self service of food and beverages stations were not removed (18).
- Resident laundry was not cleaned between uses (14).

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Common Discrepancies – Routine Practices

- Appropriate PPE was not available to staff (25).
- Recommended contact time for low level disinfectant was not observed (16).
- Staff were not wearing all required PPE to enter ill resident space (14).

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Potential Interventions

- Targeted education during summer




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Potential Interventions

- “IPC Fair”
- Piloted at 2 sites last year
- Development and dissemination of a toolkit



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Potential Interventions

- Meetings with sites/organizations to strategize for next year
 - Lessons learned
 - Areas for improvement



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Outbreak Management is a Journey



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Questions?

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