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BACKGROUND

In November 2021 atmospheric rivers brought record breaking amounts of rain to multiple areas of British Columbia and caused widespread flooding and landslides. This resulted in supply chain disruptions, hundreds of commuters being trapped between landslides, episodes of electricity loss, and extended periods of isolation for communities.

The three major highways connecting the Lower Mainland and the Interior were forced to close which directly impacted 32 of the Abbotsford Peritoneal Dialysis Unit patients. Patients were unable to travel to the PD unit and supplies were only able to reach the area by air transport.

DISCUSSION

1) Identification

The Abbotsford Peritoneal Dialysis Unit collaborated with the Fraser Health and BC Renal emergency response teams to identify patients impacted by the extreme weather events. A list of potentially impacted patients was generated from the provincial Patient Records and Outcome Management Information System (PROMIS) and cross referenced with physical patient charts in the unit.

2) Assessment

The vulnerability of each patient on the list was individually assessed by considering:

- Location of residence
 - Determined by address in patients' charts and PROMIS
 - PD staff called each patient to confirm if patients were able to shelter in place or needed to evacuate
- Current dialysis supply inventory
 - Baxter staff generated and provided a list of patients due for deliveries within the next two weeks
 - PD staff called each patient to determine what supplies the patients had in their home
 - PD staff also determined what patients lived in the impacted area that were no longer doing PD and may have supplies in their homes
- Stage in peritoneal dialysis transition
 - PD nurses determined which patients required urgent in-person assistance (e.g. patients with a new PD catheter who were not trained yet)

3) Support and Outreach

- Virtual CAPD training was done for one computer savvy patient isolated by flooding
- PD supplies were flown out by helicopter to a patient stranded in a remote community, and a local courier assisted with the pickup and delivery to the patient's home.
- Patients not living in the impacted areas required assistance when their caregivers were stranded on the other side of the flood with no transportation or time estimate on when they could return home, so PD nurses went to those patients' homes.
- One PD nurse, who was already stranded on the other side of the flooding, did home visits to new patients needing dressing changes and flushes.
- Supplies were not available from local hospitals, however the PD nurse was able to obtain supplies from a patient who was no longer doing PD and had not disposed of the equipment. Some supplies were also flown out to the nurse by helicopter.
- When one highway temporarily opened, another PD nurse drove to the other side of the flooding and stayed for five days to train two patients in their homes as they could not delay starting PD.
- PD patients from other communities came to the PD Unit to pick up supplies when their deliveries were delayed due to highway closures due to flooding, mudslides and road washouts.



Flooding of Trans-Canada Highway 1 and surrounding area

NEXT STEPS

- Improvements to the PROMIS Emergency Planning Module to include an interactive map of all home dialysis patients.
- Education to all PD patients regarding the need to have minimum two weeks of CAPD supplies on hand for emergencies.
- Increased frequency of Emergency Preparedness awareness campaigns to biannual (May and October).
- Creation of an online video to support PD patients and caregivers to safely perform automated peritoneal dialysis when the usual caregiver is unavailable

CONCLUSIONS

Ensuring an emergency response plan is in place, and is regularly reviewed prior to a natural disaster, enables the team to rapidly respond and support patients and caregivers to safely continue peritoneal dialysis.

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The Abbotsford Peritoneal Dialysis Team