Inpatient Diabetes Care during the COVID-19 Pandemic: Case studies of innovative practice

The Diabetes Outreach Team – Cambridge University Hospitals

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Summary

The Diabetes Outreach Team (DOT) at CUH is a team of specialist nurses, dieticians, and a care technician, led by diabetes consultants, who provide a diabetes advisory service for patients admitted to hospital.

Key interventions made during COVID-19:

- Increased from 6 to 7-day working without increasing shifts worked by staff.
- Patient support post discharge increased from 1-2 telephone calls to unlimited patient support as needed.
- Daily reviews of out-of-range glucose readings for inpatients to offer early, proactive intervention.
- Proactive remote review of all diabetes admissions in the last 24 hours to prevent harm.
- Attendance by DOT member at re-located green diabetes ward for enhanced support.
- Remote reviews increased in both green wards which were COVID-19 free areas, and red wards where COVID-19 was present.

Key learnings:

- A lot can be achieved in a small space of time with support from the Trust. DOT were lucky to be given the support to change what they needed and maintain good levels of care for people living with diabetes in their hospital.

- The opportunity for the team to see the benefits of 7-day working was valuable. A reduced number of shifts taking place on Sunday was shown to have a real impact on both the patients and the team on Monday, with less discharges and reviews to complete.

- A consistent challenge for the team is not creating dependency from other areas of the hospital; a balance is needed where other teams can take some responsibility for diabetes care. During the pandemic, it was recognised that previously achieved levels of diabetes knowledge would have been eroded due to the redeployment of many teams hence specialist enhanced support was to be expected.

How the team adapted

Diabetes teams across the country have come under extreme pressure during the COVID-19 pandemic. This period of uncertainty, whilst challenging for inpatient services, has also provided some with the opportunity to develop new and innovative services. Addenbrooke's Hospital, part of Cambridge University Hospital Trust, received 508 COVID-19 patients in total. Although nearing capacity, they did not hit the peak they were expecting, and they remained comfortably within ICU capacity.

Seven-day working

DOT adapted their service to ensure people living with diabetes continued to receive the care they needed throughout the pandemic. Before March, the team had recently moved to six-day working, however with the advent of COVID-19 they adopted seven-day working. The pre-COVID-19 move to 6-day working required some negotiations with unions but the move to 7-day working was primarily driven by good will on behalf of the team. Funding for weekend working had been in the budget planning dialogue since 2018 so no extra paperwork was needed to enact the change during the pandemic. Weekend working was accomplished by re-rostering, weekend shifts were adjusted against weekday shifts and the usual uplift for weekend days was applied. This redistribution of shifts from normal working hours to outside of these meant that no extra nurses were required.

The teams move to a 7-day working model improved discharge and patient flow. However, there was a constant push to keep inpatient stays short, reducing patient interaction and opportunities for education. The team are currently back to 6 day working with modified remote Sunday working as the benefits to workload and patient experience from the COVID period has been recognised.

Remote consultations

Remote access was available pre-COVID-19, however remote consultations were not encouraged. Since March, the team have adopted these more widely, particularly for follow up conversations where examination is not necessary. They reduced the number of face-to-face reviews in red areas of the hospital and increased the total number of phone consultations carried out. In green areas, face-to-face consultations were continued, and first consultations happened in person. However, to decrease risk of transmission, telephone or remote consultations were used where possible. Electronic medical records (EMR) enabled clinicians to get the information they needed without being at the bedside. Ward phones were also available to speak to the patient.

Given the large size of the hospital, having conversations over the phone saved time as nurses did not need to travel around the hospital as often. This allowed more patients to be seen and increasing access for certain groups. The groups the team felt remote working worked well for included:

- Independent patients who generally self-managed. Typically getting in touch for guidance on managing glycaemia through their acute illness and immediately after discharge.

- Those waiting for a routine review prior to discharge; turnaround time between referral and review was reduced.

- Patients where insulin titration was the main aim of review, e.g., enteral parenteral feeds, new regimens, steroid induced hyperglycaemia.

- Patients with prolonged admissions who previously had face-to-face reviews or assessments where on-going advice was the main aim of the review.

However, a downside to this is that there are details and subtleties which are hard to pick up over the phone. It also led to the team performing more reviews than they would normally be comfortable with in one shift, and affected relationship building both between patients and staff. The team have now moved to a hybrid model of face-to-face and remote consultations, hoping to maintain the best aspects of each.

Remote working

DOT were lucky to avoid major staff redeployments from within the team during the first wave of COVID-19, with only one DSN being redeployed to work elsewhere. One of the challenges many hospitals have faced, and CUH were no different, was members of staff needing to work from home due to shielding or otherwise. To achieve this a rolling rota was set up to manage who was in and out of the office and which staff had gone down to part time. Remote access to EMR was also set up so that staff were able to work from home. This allowed reviews to take place offsite, reducing social distancing issues within offices.

Other changes

The pandemic created an opportunity for DOT to build better communication with the community diabetes nurses. Previously, discharge follow up was restricted to two phone calls. During the first wave, and in recognition of the big changes in community DSN working due to restrictions in visiting patients, the inpatient team took on community follow up of discharged patients for as long as necessary. Cooperation between the teams increased significantly with both seeing the benefits of a united way of working. This more integrated way of working has continued as things have returned to normal.

DOT began a daily board round on the diabetes ward over the pandemic. Previously the team worked independently; providing services to patients located in other areas of the hospital. However, this changed over COVID-19 due to diabetes specialist consultants and registrars often being redeployed to other wards. The daily board rounds ensured that specialist knowledge was available on the ward and gave the team the opportunity to highlight anyone in need of specialist care.

The team also reinstated proactive remote reviews of all admissions in last 24 hours. Although more labour intensive due to the need for a senior grade reviewer, being proactive on admission enabled quicker responses. They also instated ‘glucose dumps’; daily reviews of out-of-range glucose readings for in-patients to offer early, proactive intervention.

Several changes made over the pandemic have been or will be discontinued shortly. A team member no longer performs board rounds on the diabetes ward as redeployed consultants and registrars have returned to the diabetes service. Proactive reviews are no longer taking place as the teams’ workload has returned to normal levels and there is no longer the same time available. However, review of ‘glucose dumps’ to review out-of-range readings continues.

How change was achieved

The Trust were supportive of the changes the team required over the pandemic and they did not need to put forward a business case or negotiate. They put forward proposals to the nursing leadership and finance teams which were accommodated within current budget plans and no additional barriers were put up. Patient safety was at the forefront of all discussions.

To achieve 7-day working without the need for extra nurses, shifts were reduced to 7.5 hours per person. For two months over April and May two nurses were on shift on Sundays and bank holidays. The Saturday shifts continued after May and as of mid-September 3-hour remote bank shifts have been implemented on Sundays to look at referrals for the week ahead.

Additional concerns

Staff education was halted as there was no capacity to deliver it over the course of the pandemic. Providing face-to-face education was also a clear issue and remote education was never as popular as sessions which took place on site. Since its return uptake has still not returned to what it was. Workload is currently extremely high, and it is difficult to get people involved. With increased levels of staff movement, it would have been helpful to have ongoing education about diabetes available for those with less experience.

Future Plans

- A move back to 7-day working.
- Enhanced integration of hospital and community teams.
- Continuing to perform daily out-of-range glucose readings for inpatients to ensure proactive intervention.
- A move back to proactive reviewing, this has been stopped due to return to regular caseload, but the team would like to reinstate it.

- A hybrid model of face-to-face and remote review is now being implemented to employ the benefits of each.

- The team are looking at collecting data on community DSN referrals and re-admissions rates.

- DOT have been recognised as a core part of the hospital during COVID-19, as they have been historically. This recognition from the Trust is something they will use and build upon to ensure the greatest level of care can be achieved for inpatients living with diabetes in their hospital.

Acknowledgements

We would like to thank Dr Vishakha Bansiya for her help with this case study, her cooperation and insight were invaluable.