Telehealth scenario: Urology postoperative video visits

The entity (BonaCura Children’s Hospital) referenced in this illustrative case is fictional. Individuals, businesses, events and scenarios referenced are influenced by interviews and review of publicly available literature. Any resemblance to actual individuals, entities or events is purely coincidental.

Overview

BonaCura Children’s Hospital is a large pediatric specialty hospital serving a broad catchment area covering both urban and rural geographies. The BonaCura Urology Department has decided to adopt video visits to provide postoperative care, particularly for patients located in rural areas.

BonaCura conducts approximately 1,200 urological surgeries annually. A claims analysis conducted by the hospital’s research department found that a significant proportion of BonaCura's patients were not coming back to the hospital for postoperative follow-up visits. The analysis revealed that a greater percentage of rural patients were experiencing postoperative complications and returning to the hospital for subsequent postoperative care compared with urban patients. To address this disparity, BonaCura has decided to implement a re-engineered, technology enabled discharge protocol.

Before discharge, the patient’s physician assesses whether the patient’s family member or caregiver has the necessary devices and broadband connection to participate in post-discharge video visits for follow-up care. If they can participate, the physician initiates consent and scheduling for the follow-up video visit.

Those who lack the necessary technology to participate in virtual care will be provided with a connection to local resources that can support their efforts to acquire needed technologies.

Two or three days after discharge, a nurse or medical assistant will reach out to the family member or caregiver via telephone to review discharge instructions, remind them of the patient’s upcoming video visit, and answer any technology related questions.

During the video visit, a clinician will assess the patient’s postoperative status with the help of a family member or caregiver and address any issues or complaints related to the surgery. After the video visit, the physician will contact the patient’s pediatrician to update them on their patient’s status.
Strategic goals

BonaCura Children’s Hospital will utilize postoperative video visits in order to:

- Address inequities in postoperative outcomes for rural patients.
- Optimize clinical space and resources.
- Enhance patient/family experience by reducing out-of-pocket costs and unnecessary travel.

Program impact on health care value streams

Clinical outcomes, quality and safety

Clinical quality and safety outcomes; clinical processes

<table>
<thead>
<tr>
<th>Relevant measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Postoperative infections requiring ED visit or inpatient readmission</td>
</tr>
<tr>
<td>Adherence to evidence-based guidelines</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Impact goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce rates of postoperative infections requiring ED visit or inpatient readmission within 90 days by 20%</td>
</tr>
<tr>
<td>Improve adherence to discharge instructions by 40%</td>
</tr>
</tbody>
</table>

Access to care

Affordability of care; availability of care

<table>
<thead>
<tr>
<th>Relevant measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Out-of-pocket costs as a percentage of household budget</td>
</tr>
<tr>
<td>Patient travel time saved</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Impact goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce patient-reported out-of-pocket costs for follow-up care (including travel, time off work, etc.) by $100 per person</td>
</tr>
<tr>
<td>Reduce patient travel time by two hours</td>
</tr>
</tbody>
</table>

Patient, family and caregiver experience


Copyright 1995 - 2021 American Medical Association. All rights reserved.
Clinical and/or technology experience

**Relevant measures**  Net Promoter Score (NPS)

**Impact goals**  Increase NPS by 15%

Clinician experience

Technology experience

**Relevant measures**  Reported ease of using technology

**Impact goals**  Ensure that at least 75% of clinicians find the technology easy to use

Financial and operational impact

Operational efficiencies

**Relevant measures**  No-show rate

**Impact goals**  Achieve no-show rates of under 5%

Health equity

Equity in clinical outcomes, quality and safety

**Relevant measures**  Relative reduction in adverse postoperative outcomes by geography

**Impact goals**  Reduce the geographic gap in postoperative infection rates for rural versus urban residents by 25%

Examples of virtual urological posoperative follow-up programs

**Arkansas Children’s Hospital:** The Arkansas Children’s Hospital Urology Department delivers postoperative follow-up telehealth visits for patients located in Springdale, Jonesboro, Texarkana and Fort Smith.

**Mayo Clinic:** At the onset of the COVID-19 pandemic, the Mayo Clinic Center for Connected Care
launched a program to enable video and telephone visits for pediatric urology.

**Mount Sinai**: Mount Sinai’s Department of Urology conducts telehealth primarily for postoperative follow-up and has scaled up the program during the COVID-19 pandemic to address select other visit types.

---

**Relevant literature supporting illustrative impact estimates**

**Access to care**

- In a systematic review of 21 studies evaluating telehealth use in the postoperative setting, round-trip miles and travel time saved directly translated into monetary savings for families, ranging from $36 to $357 saved on travel.
- A 2020 study on the use of telehealth for postoperative video visits found that less work and school were missed by parents and children, respectively. The opportunity costs associated with an in-person visit were computed at $23.75 per minute of face time with a physician, compared with $1.14 for a virtual visit.
- A 2020 study assessed the impact of introducing video visits in a tertiary academic pediatric urology practice, serving primarily rural patients during the COVID-19 pandemic. On average, 2.25 hours of travel time was saved per patient.

Download the scenario (PDF) and read other Return on Health telehealth case studies and scenarios.