



# Innovative Technology Solutions for Medicare Patients and Providers

***Sharon Hibay, RN, DNP***

Sr. Director, Quality Measurement & Innovation  
shibay@livanta.com

**Lance N. Coss, MS, MEd, CGC**

BFCC-QIO Program Director

**Michael F. Berkey, Esq., CPA, MPA**

Chief Operating Officer

**Matt Shlosberg, MBA**

Chief Information Officer

Livanta LLC  
10830 Guilford Drive, Suite 300  
Annapolis Junction, MD 20701

## Overview/Synopsis

Livanta LLC (Livanta) is a Beneficiary and Family Centered Care Quality Improvement Organization (BFCC-QIO) for the Centers for Medicare & Medicaid Services (CMS). Its contracts with CMS cover Area 1 (the Northeast, plus Puerto Rico and the Virgin Islands) and Area 5 (the West, plus the Pacific Territories and Possessions). One of the ways in which Livanta advocates for Medicare patients in its areas is by conducting federally mandated medical case reviews. Among the case reviews performed by the BFCC-QIO (see Call-out Box below), those that involve expedited discharge/termination of service appeals and patient complaints about the quality of care they received dominate the workload. In conducting these reviews, Livanta must decide whether a proposed discharge/termination of services is appropriate and whether the provided health care services were consistent with professionally recognized standards of care.

Livanta provides a Medicare Beneficiary HelpLine to receive appeal requests and service complaints and to answer questions about the QIO process from Medicare patients, providers, and other stakeholders such as caregivers, representatives, managed care plans, and advocacy groups. Shortly after the HelpLine’s inception on August 1, 2014, Livanta noted unexpectedly high call volumes. Livanta analyzed these calls and as a result, employed its Technology Team to develop and deploy two new solution-based tools to reduce call volumes and to provide a faster mobile method to reach the HelpLine, while maintaining the ability to respond fully and effectively to the daily information needs of those it serves.

The first solution was **Arrow**, an online tool built upon a **Zuider** platform that allows users to track the status and details of both pending and completed medical case reviews without having to make a call to Livanta. This tool provides the data that callers want in an innovative, convenient, accessible, and real-time environment, without revealing any identifiable patient information.

Livanta again leveraged its expertise to develop and publish a smartphone tool, the **Medicare Quality HelpLine App**, to help initiate appeal requests, quality of care complaints, and other BFCC-QIO related concerns more easily. By downloading the app, Medicare patients and other stakeholders can quickly identify and contact the HelpLine for advocacy support. The goal for both innovation tools was to improve BFCC-QIO processes and stakeholder interactions.

### Livanta Deploys Innovative Technology Tools for Patients & Providers

The Livanta Technology Team developed and launched **Arrow** and the **Medicare Quality HelpLine App** to support Medicare patient advocacy rights and to assist health care providers with medical case reviews in BFCC-QIO Area 1 and Area 5.

These two innovative technology tools help track Discharge/Termination of Service appeals and Quality of Care case reviews and provide quick and easy access to the Medicare Beneficiary HelpLine.

This article summarizes the rapid analysis, development, and release of the innovative information technology tools to improve existing medical case review processes and to enhance user experience and satisfaction.

#### Table of Contents

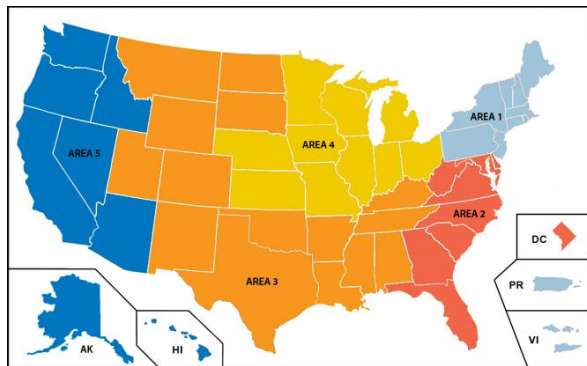
- Overview/Synopsis ..... 1
- Background: Quality Improvement Organizations (QIOs) ..... 2
- Medical Reviews in BFCC-QIO Area 1 and Area 5 ..... 2
- The Problems..... 3
- Consumer-Based Technology Solutions ..... 3
  - Arrow ..... 4
  - Utilizing Zuider to Develop Arrow..... 4
  - Medicare Quality HelpLine App... 4
- Conclusion ..... 5
- Resources ..... 5

## Background: Quality Improvement Organizations (QIOs)

CMS QIOs work with Medicare patients and other stakeholders to support better patient care, better population health, and lower health care costs through quality improvement efforts. QIOs are the largest federal program dedicated specifically to improving health care quality at the community level. There are two types of QIOs.

1. BFCC-QIOs advocate for patient rights and protect the integrity of the Medicare Trust Fund through medical case reviews and other advocacy outreach activities. Livanta is the BFCC-QIO for Area 1 and Area 5 (see Figure 1).

**Figure 1. CMS 11<sup>th</sup> Scope of Work BFCC-QIO Map<sup>1</sup>**



2. Quality Innovation Network QIOs (QIN-QIOs) work to improve the quality of healthcare for targeted health conditions and priority populations and to reduce the incidence of healthcare-acquired conditions to meet national and local priorities. There are 14 QIN-QIOs covering all of the U.S.

Visit the CMS QIO Program website<sup>2</sup> for more information about the structure and purpose of QIOs.

## Medical Reviews in BFCC-QIO Area 1 and Area 5

Livanta, the BFCC-QIO for nearly half of all Medicare patients, understands and respects patient rights and is dedicated to protecting them by reviewing appeals and quality concerns in an effective and efficient patient-centered manner. To meet the needs of patients, providers, and other stakeholders, Livanta oversees and operates its Medicare Beneficiary Helpline 7 days a week and 365 days a year.

Livanta provides this assistance to promote better care, healthier people, and smarter healthcare spending. Some examples of issues brought to the attention of the Helpline include:

- Care ending too soon, or treatment denials,
- Immediate advocacy and support for delayed services,
- Medication mistakes or other serious healthcare errors,



### BFCC-QIO Medical Reviews

#### Quality of Care

- Beneficiary Complaints
- Immediate Advocacy
- General Quality of Care Concerns
- Referrals
- Focused Reviews
- Sanctions

#### Appeals

- Provider Discharges
- Termination of Service
- Hospital Issued Notices of Non-Coverage
- Advanced Beneficiary Notices

#### Utilization

- Higher-Weighted Diagnosis-Related Group (DRG)
- Short-Stay Determinations
- Coding and Billing Validation
- Medical Necessity

#### Emergency Medical Treatment and Labor Act (EMTALA)

<sup>1</sup> <http://www.qioprogram.org/resources/content/10th-11th-scope-work-sow-new-qio-program>

<sup>2</sup> [www.qioprogram.org](http://www.qioprogram.org)

- New infections, bed sores, or falls at a healthcare facility,
- Severe and unexpected bleeding or blood clots at a healthcare facility, and
- Poor discharge or follow up information.

When patients file appeals and complaints, the Livanta staff performs comprehensive medical case reviews to verify whether the discharge/termination decision of the healthcare provider is appropriate and whether the health care services are consistent with professionally recognized standards of care and are reasonable and necessary based on Medicare law. Visit the QIO Patients & Families webpage<sup>3</sup> to learn more about medical case reviews.

## The Problems

During its first quarter of operations beginning in August 2014, Livanta recorded an extremely high provider call volume, often topping 200 calls a day. Each of these calls required a response by a live HelpLine agent, which diverted these agents from taking other calls from patients and their caregivers. Livanta's BFCC-QIO team initiated an analysis of the call volume content to identify areas where calls could be reduced or handled using a more efficient mechanism.

The analysis of historic and actual call volumes and content from providers revealed that the majority of these calls were for questions seeking information about the status of open cases (*"Is the appeal completed yet?" "Did you get the medical record I sent?"*). Livanta also found that some patient/caregiver-initiated calls were only seeking status updates of pending cases. Livanta recognized a need for another method of providing review status updates that would help eliminate callers having to wait in a phone queue.

Livanta further analyzed its incoming calls and learned that between 25-33% of calls were not from patients, but from caregivers, representatives, and family members who were initiating appeals and quality of care complaints on behalf of Medicare patients. These stakeholders often communicated from their cell phones rather than from fixed locations and might benefit from having an easier way of reaching the Livanta HelpLine than having to look up the number.

## Consumer-Based Technology Solutions

The results of the call volume and content analysis demonstrated that Livanta should aim innovative technology solutions at these problems. Livanta needed to find ways to get needed information to patients, providers, and other stakeholders without a phone call to allow its HelpLine staff some call volume relief to address more urgent patient/caregiver-initiated calls, such as general quality of care concerns or medical review referrals. In addition, why not make the process more mobile by introducing a smartphone app to allow more direct access to Livanta's HelpLine when a phone call is necessary?

To help provide real-time medical case review information, Livanta introduced an innovative online tool in December 2014 for patients, providers, and other stakeholders. This tool, called **Arrow**, allows users to enter Livanta's assigned case control number and immediately access the status of their appeals and quality of care complaints. **Arrow** is available through the Livanta BFCC-QIO Area 1<sup>4</sup> and Area 5<sup>5</sup> websites.

Shortly thereafter, in February 2015, Livanta again utilized its Technology Team to develop and deploy the **Medicare Quality HelpLine App** to allow a fast and easy smartphone connection

<sup>3</sup> <http://www.qioprogram.org/patients-caregivers>

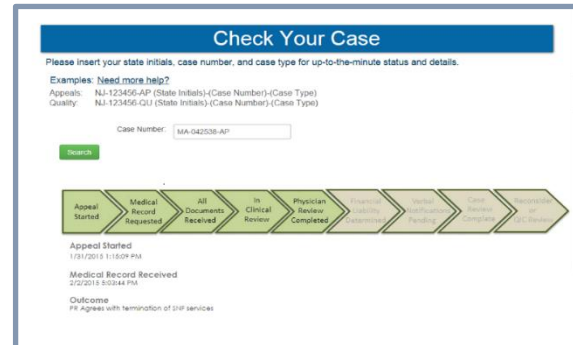
<sup>4</sup> [www.BFCCQIOArea1.com](http://www.BFCCQIOArea1.com)

<sup>5</sup> [www.BFCCQIOArea5.com](http://www.BFCCQIOArea5.com)

between Livanta’s HelpLine and patients, caregivers, representatives, and others on the go. Each of these tools is described in more detail below.

## Arrow

**Arrow** provides a snapshot of the current case status with easy-to-follow graphics and additional written details. A graphic representation of colored arrows indicates the completed steps and details are returned in text for each case type.



The steps for each case type differ slightly. For expedited Medicare appeals, the completed steps are displayed in green (see image), and with quality of care cases, the completed steps display in blue. Gray arrows indicate steps yet to be completed in either type of case. When the case is marked “completed,” **Arrow** displays the case outcome and other helpful information as well as the completed individual steps.

**Arrow** displays no provider identifiers or patient protected health information (PHI), so the tool may be used on a smartphone, tablet, desktop, or any device with access to the internet. Users may check the status of pending reviews at any time of the day or night. Since **Arrow** launched, user feedback has been overwhelmingly positive and the utilization of the site continues to grow weekly, currently averaging over 5,000 hits a week.

Disclaimer: The **Arrow** tool is intended to supplement the existing case review processes. It does not replace any processes, including phone notification of decisions. Providers should not discharge patients until they have received verbal notification of the decision from Livanta.

## Utilizing Zuider to Develop Arrow

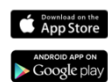


**Arrow** was created and deployed with **Zuider**, a rapid application development platform. By utilizing **Zuider**, the Livanta Technology Team successfully defined, designed, tested, deployed, and continues to maintain and integrate **Arrow** within the larger family of BFCC-QIO tools. **Zuider** was selected based on its unique ability to scale and to meet the needs of end users rapidly and effectively. CMS previously provided Livanta with an Authority to Operate (ATO) on the existing system powered by **Zuider**. This meant that Livanta could provide the client with a stable, reliable, and secure solution on a platform with which the agency was familiar.

**Zuider’s** drag and drop forms capability, coupled with automated workflow orchestration and component reuse, allowed the team to compress its development timeline significantly. The custom business logic allows Livanta to develop solutions that meet the specific needs of its clients. As Livanta continues to extend the capabilities of **Arrow**, it will leverage **Zuider** to deliver further business value to its clients.

## Medicare Quality HelpLine App

On February 11, 2015, Livanta released the **Medicare Quality HelpLine App**, which uses innovative smartphone technology and allows patients to identify and contact the HelpLine for advocacy support. The app is available from Google play and from the Apple App Store. When users download the app, which uses a simple machine-readable (QR) code, and enter the state or territory where services were provided, they have quick



and easy access to Livanta staff who will listen to and address the concerns of patients, providers, and other stakeholders.

## Conclusion

Livanta provided consumer-based technology expertise to meet the needs of patients, providers, and other stakeholders. The development and deployment of **Arrow** and the **Medicare Quality HelpLine App** were the needed solutions to real issues. By swiftly activating its infrastructure and capabilities, Livanta was able to offer health information technology, health care consulting, program integrity, business process outsourcing, quality improvement, and strategic communication solutions to public sector and health care customers to solve customer problems and to offer results-driven answers. Livanta continually monitors review processes and feedback to identify areas of needed improvement and is committed wherever possible to use the benefits of technology to deliver faster and reliable solutions at less cost to Medicare. Utilizing its expertise and capabilities, Livanta will leverage **Zuider** and other pioneering tools to make further enhancements to **Arrow** and the **Medicare Quality HelpLine App**, and to create solutions to meet clients' needs.

## Resources

For more information, the following websites and contacts are provided.

### Websites

CMS QIO Program

[www.qioprogram.org](http://www.qioprogram.org)

BFCC-QIO

[www.livantaqio.com](http://www.livantaqio.com)

Livanta

[www.Livanta.com](http://www.Livanta.com)

Zuider

[www.Zuider.com](http://www.Zuider.com)

### Livanta BFCC-QIO Program

**Director** Lance Coss, MS, MEd, CGC

BFCC-QIO Program Director

[lcoss@livanta.com](mailto:lcoss@livanta.com)

### Livanta Expertise, Capabilities, and

**Experience** Bryan Dorsey, AM, APMP

Director, Business Development

[bdorsey@livanta.com](mailto:bdorsey@livanta.com)