



Fixing the Patient Access Problem

**How the First EHR Embedded Chatbot
Automates Patient Management**

No matter how large and awesome your patient access or front desk staff may be, you and every health care delivery organization still struggle with four major problems:

- Patients forget to show up for appointments and don't reschedule.
- People with chronic illnesses who need regular check-ups don't make appointments.
- There's no easy way to reach populations who need preventive screenings and treatments.
- Non-English speakers are difficult to reach and may fall through the cracks of health management.

Taken together, these problems are far more than just annoying – they are costly and they threaten your ability to deliver high-quality health care.

- No shows cost an estimated \$200 for each unfilled time slot, resulting in revenue leakage of \$10 million for a 100 provider system.
- Missed appointments delay care and put patients at risk.
- Lack of follow-up and preventive care leads to poor health outcomes.

Patients and providers alike are frustrated by the current system. Patient access staff are overburdened and often burned out. The threads of communication that link patients and providers are fragile at best, and often fail to serve their purpose: coordinated, consistent care.

And today, without the ability to influence patient behavior, providers from medical practices to large health systems are in financial danger. In a world moving toward risk-based reimbursement, they are increasingly paid based on clinical results. If patients' health can't be managed, providers cannot deliver top quality results.



Can Digital Communication Solve These Problems?

The digital revolution in health care is helping to transform patient-provider communication, but with two serious drawbacks:

- **Incomplete workflows:** To date, these options fail to conduct two-way communication that guides patients to the desired outcome. For example, patients may respond to a text to say that they cannot make an appointment, but the patient or staff still needs to reach out to re-schedule.
- **A lack of integration:** Patient management systems can't tap information in the electronic health record, which limits their effectiveness. If you need to contact all your patients who need flu shots, how do you do it? If a population needs regular check-ups, how do you automatically schedule them and monitor that they are kept?

The Missing Link: Automation

What has been missing, up until now, is the automation to deliver customized, two-way conversational communications powered by data from the patient's health record that streamlines patient/provider connections.

The good news is: this gap has now been closed.

Now, chatbots can solve these problems, providing health care delivery organizations with a competitive advantage AND delivering to patients the coordinated care and seamless communication they expect and deserve.

This paper examines the scope and impact of current challenges in patient management and communication, and what type of automated workflow solutions are effective – or not – in solving them. The three major problem areas addressed are:

- Appointment no-shows and re-scheduling.
- Facilitating and managing patients' behavior.
- Communicating with patients whose native language is not English.

But first, let's look at how today's front desk or patient access function operates, and why that needs to change.

Patient Access: Air Traffic Control Tower for Patient Communication and Management

The front desk in a medical office or health system is the air traffic controller in medicine: the hub for patient communication and management. These functions are so important that many health care organizations have re-named the area “patient access.”

The Traditional Front Desk is Now “Old School”

The reality is that the way that the traditional front desk function operates no longer works for patients or health systems.

The patient journey to see the doctor hasn't really changed in the last two generations. Appointments are made and re-scheduled by telephone, only during the hours the practice is open. Reminders are sent via mail or done by telephone, or today, by e-mail or one-way text.

The patient might have access to a portal or app, but still has to download the app and remember the login password and wait for questions to be answered.



It's a frustrating tale of expectations not met, missed connections, choppy workflows, and time wasted.

And neither the “old school” methods of reminders by mail or phone, nor the recent digital methods of e-mail and one-way texting, have proven to be successful in reducing expensive and inconvenient “no shows.” Medical providers still lack an effective means of communicating with patients to keep them adherent with the clinical directives that are embedded in the EHR.

When we all live our lives on our smart phones and messaging and can conduct transactions 24/7, this circuitous communication pathway is like playing “telephone” with tin cans and string. It's time to provide the same convenience in managing doctor/patient relationships that exists in other areas of our daily lives.

I. A Closer Look at that Pesky ‘No Show’ Phenomena

Missed appointments and no shows are an often over-looked drain on the price and the efficiency of health care. Losses due to no shows penalize the U.S. health care system by \$150 billion a year and can cost a practice an average of \$200 per unused time slot.¹

Between 23 percent and 34 percent of outpatient appointments are missed annually. People who skip appointments have poorer health outcomes and are less likely to use preventive health care services.²

What are the reasons why patients don't show up? The majority of no shows are due to forgetfulness: 52.4 percent forgot to attend or cancel, 28.6 percent incorrectly noted the time and 23.8 percent cited other issues (traffic, work, other conflicts), according to a study by the Medical Group Management Association.³

Augmenting Your Patient Access With Chatbots

Chatbots can engage patients with two-way communications, guiding them with options and concluding transactions in the EHR. With chatbots, patients have an experience similar to that of talking to a human. And, they don't need to wait on hold. The disconnected and inefficient manual workflows are replaced by seamless, automated communications and transactions.

- Reminders are automated and closed-loop — able to process responses.
- Instead of no-shows, appointments are cancelled or re-scheduled via text.
- If there is no response, the system follows up.
- If there is a need to re-schedule, it is handled.



II. How Patient Access Impacts Quality of Care

If patients don't keep appointments, their health can suffer. If they don't get re-checked, chronic disease can worsen. If they don't get preventive tests, a condition may develop and worsen undetected. Missed appointments delay testing, put patients in danger and may result in postponing the detection of a disease.⁴ Patients who need regular monitoring don't receive it, and are more likely to fail to adhere to their doctor's advice.

Research documents the relationship of compliance and quality. Most clinical outcomes were positively related to adherence, ranging from 64.3 percent to 100 percent across diseases.⁵ Lack of adherence means poor outcomes.

Besides our shared desire to improve patient health, there's another concern about our ability to do high-quality patient management. Health care is moving increasingly toward population health, risk-based payment and rewards based on quality outcomes. Keeping patients compliant with an appointment schedule will increase performance in all these quality measures.

Medical practices and health systems need solutions to help patients be compliant with appointments, medications and preventive tests. Labs and hospitals must lower the likelihood that patients show up for procedures but haven't followed the protocols for preparation, and so the procedures must be re-scheduled. When patients are compliant, they are healthier and outcomes measures are improved. They are happier and patient satisfaction scores go up.

How Communication Improves Quality

Traditional texts do not have the ability to engage the patient in bi-directional, goal-oriented communication. Now, chatbots can add the two-way communication function that can actually solicit and act on the the patient's response. For example:

- They can identify patients who need a flu shot and automatically reach out via text and actually let the patient self-schedule the appointment.
- They can pinpoint people with diabetes who need regular re-checks, connect with them and make sure the appointment is made.
- They can target individuals of a certain age who should go in for a preventive test.

Chatbots can also pull information from the electronic health record and use the information to personalize patient communications. For example, they can notify the patient about checking and reporting their weight, taking their blood pressure, and reminding them it is time to schedule a preventive care check-up.

Essentially, chatbots function like a 24/7 patient access team. They are always on the job.

Meanwhile, staff in the practice or the department can focus on the patients who are there to be seen, who need treatment, require counseling and special communications, or who have more complicated situations.

III. Solving the Language Conundrum

All of the roadblocks to good patient communication and management are exacerbated when the patient is more comfortable in a language other than English. In our polyglot population, the likelihood of this occurring is getting more common every day.

In fact, it's estimated that more than one in five Americans speak a language other than English. While at one time these non-English speakers may have been located primarily in certain geographic areas, today all states report at least 13 languages are spoken by their residents;⁶ with major metro areas such as Chicago and New York City reporting as many as 193 languages being spoken.⁷

For health care organizations serving disadvantaged populations, these incidents are even higher. The 1300 Federally Qualified Health Centers (FQHCs) are especially impacted by the multiple languages spoken by their patients.

Federal law requires linguistic services for patients with limited English proficiency (LEP) from health care organizations that receive federal funds, which most do in the form of public insurance payments such as Medicare or Medicaid. Health care organizations must provide services in a language that a patient with LEP can understand.⁸

When patients communications does not happen in the patient's native language, they are less likely to adhere to their treatment plan and more likely to miss appointments, contributing to the likelihood of errors and health disparities for this vulnerable population.⁹

Asparia: Optimizing Patient Access

The advent of the multilingual chatbot that delivers personalized, automated patient management communication is the solution to the triple threat in patient access: no shows, patient adherence and managing non-English speaking patients.

These chatbots are not just two-way texting, but customized, personalized communication that can interact and respond to the patient in real-time. They facilitate what used to require a phone call, but can now be done via texting without “live” human involvement.

With automation of the front desk function, health care providers:

- Reduce losses from no shows and make maximum use of providers’ time.
- Free staff to work personally with patients who need assistance.
- Improve quality results with automated patient management linked to the EHR.
- Protect patients who do not speak English from falling through the cracks.

Developed by health care professionals who understand all of the work flows involved in these functions, the Asparia system is modernizing the patient access world.

And best of all, implementation and operation of this solution is friction-less. The only chatbot embedded within the Epic AppOrchard, NextGen, Athenahealth, Allscripts, DrChrono and other electronic health record systems, Asparia can be turned on instantly, and best of all the staff continue to work within the EHR and do not need to login or get trained on a new system.

Results from Asparia’s Proven Solution

Asparia’s automated workflows are saving time and money – AND increasing patient satisfaction and outcomes for health systems, medical groups and FQHCs across the United States.



- A health system using Epic went live within a couple of weeks of signing up with Asparia. The process involved attending only two 30-minute meetings.
- An FQHC was able to schedule 20 more same day/next day appointments when patients were given the option to cancel/reschedule.
- More than 70 percent of patients responded when a PCP reached out to patients above the age of 50 for the Shingrix vaccine.
- A multi-site clinic reduced no shows by over 50 percent.

These improvements equate to better health care for patients, hundreds of thousands of dollars of financial impact, lower burden on staff and a competitive advantage in today's pay-for-performance marketplace.

Find out more about this game-changing innovation for health care delivery organizations at www.asparia.com or email info@asparia.com

1. <https://www.healthcarefinancenews.com/news/missed-appointments-cost-providers-150-billion-annually-report-says>

2. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5279837/pdf/ppa-11-141.pdf>

3. https://www.mgma.com/getattachment/Products/Products/Maximizing-Patient-Access-and-Scheduling/PatientAccessSchedulingResearchReport-INTER_FINAL.PDF.aspx

4. <https://www.ncbi.nlm.nih.gov/books/NBK260107/F>

5. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4714455/>

6. https://www.ajmc.com/journals/issue/2012/ajpb_julyaug2012/associating-medication-adherence-with-improved-outcomes-a-systematic-literature-review

7. <https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2484905>

8. <https://www.cms.gov/CCIIO/Resources/Regulations-and-Guidance/Downloads/Appendix-A-Top-15.pdf>

9. <https://www.cnbc.com/2015/11/04/at-least-350-languages-spoken-in-us-homes-new-report.html>