Interactive Voice Technology
& Enhanced Patient Engagement

The healthcare industry is challenged by the often contradictory requirements of reducing costs while also providing higher quality, more effective care for patients. A critical area in which these issues play out daily involves patient engagement. Many industry leaders see patient engagement as offering the opportunity to provide improved patient outcomes while also realizing higher levels of patient satisfaction. At the same time, some healthcare managers worry that patient engagement initiatives can potentially be very costly.

However, it is possible that an effective patient engagement effort can actually enhance financial performance. Medicare and Medicaid readmissions fines can be reduced. In addition, a solid patient engagement effort can increase revenues by ensuring that appointments are kept, and patients begin to develop loyalty to a healthcare organization.
The Patient Satisfaction Case for Improved Patient Engagement

The state of patient engagement has become a significant issue through all levels of the healthcare industry. A recent study by TeleVox and Kelton Research exposes both the problem of poor patient engagement and the benefits that could accrue due to higher levels of engagement. According to the study:

- **55%** of providers say they don’t communicate with patients between visits. Even more concerning, 50% of healthcare professionals believe their job begins and ends during regular office visits.

- **83%** of Americans don’t follow treatment plans exactly as prescribed by their doctors.

- **42%** of Americans feel they would be more likely to follow their prescribed treatment plans if they received encouragement and coaching from their doctors or other healthcare providers between visits.

A 2012 HCAHPS (Hospital Consumer Assessment of Healthcare Providers and Systems) study found that patient satisfaction correlated strongly with the following engagement elements:

- Understandable information about recovery – 82.72
- Doctors communicating well – 80.44
- Nurses communicating well – 76.55

Research shows that effective engagement can significantly impact levels of patient satisfaction.
Most U.S. hospitals will realize reduced funding from Medicare in fiscal 2016 because too many of their patients are returning within 30 days of discharge. According to one report, only 799 out of more than 3,400 hospitals that were subject to the Hospital Readmissions Reduction Program performed well enough on the Centers for Medicare & Medicaid Services’ (CMS) 30-day readmission program to eliminate penalties.

The readmission prevention program, created under the Affordable Care Act, initially focused its evaluation on how often patients treated for heart attack, heart failure, or pneumonia returned to the hospital within 30 days of discharge. Facilities whose readmission rates were too high were docked up to 1% of their Medicare payments in fiscal 2013. This charge was increased to a 2% reduction in fiscal 2014. The rate was again raised to 3% in 2015, with the majority of hospitals facing some level of fines during that reporting year. Today, this readmissions program covers a number of other conditions including chronic obstructive pulmonary disease and total hip and total knee replacement.

There is good news in the fact that a number of studies have established that consistent patient engagement can have significant, positive financial implications. First of all, a quality patient engagement effort will reduce readmissions. For instance, in one study, a program of post-discharge phone calls delivered a 29 percent reduction in 30-day readmissions in patients who had heart failure issues.

Another financial issue that can be effectively addressed via improved patient engagement is missed appointments. While the frequency of missed appointments vary with patient conditions and the type of practice, most healthcare organizations are dealing with 5 to 10% of their scheduled appointments being “no shows.” These missed appointments can be a drag on a healthcare organization’s income as well as patients’ health. In one study, a broad patient engagement effort – including phone call follow ups, texts, and mailers – was successful in reducing missed appointments by 36%. In another study, a phone call follow-up program, alone, reduced the incidence of missed appointments by 29%.
Interactive Voice Technology – A New Tool for Enhanced Patient Engagement

While a higher level of patient engagement is an important goal, it must be balanced against the cost of providing it. To that end, many in the healthcare industry have looked to technology to meet the twin objectives of improving levels of patient engagement and contributing to sound economics.

One area of technology that is gaining traction in the healthcare space is Interactive Voice Technology (IVT). Very much in line with the public’s increasing use of internet, text, and email technology, IVT employs sophisticated electronic intelligence to acquire information through the response of a patient to questions posed, in a real human voice, by an IVT program. In the healthcare space, IVT provides a method for effective and cost-efficient two-way communications between the patient and healthcare provider. This cloud-based technology requires no additional hardware or software, and deploying it is straightforward and simple.

One of the keys to the effectiveness of this technology is found in its use of a real human voice, in lieu of synthetic speech. This feature makes IVT more like a healthcare provider asking the patient questions concerning his or her condition. Scripts, containing easy-to-answer questions are developed for a wide range of situations, from post-discharge follow ups to pre-surgical instructions. The patient responds to the questions via easy yes or no answers, or with numbers keyed in from their digital phones or cell phones.

**Example Script:**  
Excerpt from an IVT script, used as a follow-up to a knee arthroplasty:

- “Have you read your discharge instructions, and are you following the doctor’s orders? For yes, press 1; for no, press 2…”
- “Please rate your pain on a scale of 0-10, with 10 being the worst pain. Enter the number followed by the pound sign…”
- “Is the area around your wound swollen or red? For yes, press 1; for no, press 2…”
- “Are you experiencing any bothersome side effects from your medications, or have you discontinued any of them? For yes, press 1; for no, press 2…”

If the patient responds in the correct manner to all of the questions, no other actions are required. However, if anything is outside acceptable norms – an incorrect response, a number that is out of limits, or the patient cannot be reached – a medical professional is alerted to the situation and can follow up in whatever manner is appropriate. All IVT communications are logged, providing an outstanding history of the patient’s responses.
Interactive Voice Technology – Benefiting a Wide Range of Applications

A cloud-based IVT program can serve as a tool for a full range of patient engagement tasks, providing multiple points of contact before and after a patient enters a hospital or other medical facility. Typical uses of IVT include:

• Providing pre-surgical instructions to a patient before the day of the surgery
• Communicating post-discharge instructions
• Monitoring recovery, post-discharge
• Following up on a patient’s adherence to their drug regimen
• Appointment reminders
• Surveys of patient satisfaction

The list of applications for IVT in the healthcare industry can include any function where information is key to patient well being. In addition, IVT can also be used for a broad range of patient reminders. As with any technology used in healthcare, HIPPA standards are followed and closely monitored to ensure individual medical records and other personal health information are properly secured and protected.

The benefits associated with initiating an IVT program can include:

• Greatly improved patient outcomes
• Enhanced patient loyalty to a healthcare organization
• Reduction in missed appointments
• Reduction in readmission penalties
• More efficient use of skilled nursing resources
• Reduction of unnecessary ER visits
• A significant reduction in the denial of payments by insurance carriers
• A powerful compliance tool and an adjunct to the maintenance of a healthcare organization’s Joint Commission Accreditation; for instance being used to ensure that next-day follow-up calls are completed and documented
• Increased regular health check-ups
Surgical Hospital, Southlake, Texas – A Case in Study

The value of an IVT program for patient engagement can be seen in a recent pilot project engaged by a surgical hospital in Southlake, Texas. A Six Sigma effort, this program focused on reminding patients of imaging appointments, as well as providing for pre- and post-surgical patient communications.

The results of the 6-month project were impressive. The number of missed imaging appointments was reduced by 45%, which translated into more than $28,000 per month in additional revenue for the hospital. There was also a significant increase in the level of patient satisfaction resulting from the engagement of the cloud-based IVT program. So significant was the increase in patient satisfaction, that the program effectively added two full point to the hospital’s satisfaction ratings.
To Conclude -
Better Patient Engagement and Good Economics

While it is a commonly accepted concept that enhanced patient engagement can deliver a number of benefits including better patient outcomes, higher levels of patient satisfaction, and improved financial performance, achieving that goal can seem both daunting and expensive. However, one proven and cost-effective strategy is employing Interactive Voice Technology to engage with patients when they are not in a hospital or other medical facility. As the use of IVT becomes more widespread, one can expect to see its application to an even broader range of healthcare communications tasks.