# ImageGuideEcho:

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**Navigating today's changing healthcare environment and advancing technology requires the ability for clinicians, lab directors, and administrators to assess the quality of care provided and determine mechanisms for performance improvement.**

The American Society of Echocardiography's creation of ImageGuideEcho™ as the only echocardiography specific clinical data registry was born out of a need to help our members and the field address these concerns in an efficient and low-cost way.

ASE's Board of Directors also wanted ImageGuideEcho to assess specific quality metrics and patient outcomes as a vehicle to drive technology application within the field of echocardiography for the benefit of patients, physicians, and researchers. Through analysis of echo-specific registry data, researchers will gain increased access to and be able to accelerate the most impactful research in the field. **ASE is very excited to offer participation in ImageGuideEcho as a complimentary member benefit for U.S.-based labs in 2017-2018.**

ImageGuideEcho

BENEFITS FOR ASE MEMBERS

- Avoid negative payment adjustments under MIPS
- Benchmark lab performance against echo-specific performance measures
- Leverage CV-ultrasound specific patient pool for reporting requirements
- Simplify with a single interface for multi-modality labs
- Investigate ImageGuideEcho data for focused research opportunities
- Guide quality of care improvement for echo patients

## Physician-Driven Registry

The need for ImageGuideEcho has been widely acknowledged by the cardiovascular community as a means to address quality in cardiovascular imaging, which includes disparity identification, improvement opportunities, and public reporting via established mechanisms to ensure transparency.[1] In this era of big data, "the group that has the most accurate and actionable data will have the greatest power over the specialty and the profession."[2] ASE believes that the wealth of information contained within echocardiography data should remain with clinicians themselves. ASE is thus pleased to support its members by embarking on this journey together with the American Society of Nuclear Cardiology (ASNC) to create a seamless registry interface between nuclear and ultrasound modalities under the ImageGuide Registry™ platform.

Under the ImageGuide Registry, physicians have the opportunity to participate in a nuclear module, an echo module, or both in order to receive benchmarked reports on the quality of care provided to patients. The platform itself is considered a Qualified Clinical Data Registry (QCDR) by CMS. Designation as a QCDR allows the ImageGuide Registry to submit data on behalf of registry participants directly to CMS for quality reporting and, ultimately, to avoid negative payment adjustments under the new MIPS legislation. Notably, fulfilling reporting requirements by utilizing ImageGuideEcho requires a smaller patient pool than if a physician were to utilize a more broad-based registry for reporting.

Furthermore, targeted quality measures assessing echo-specific metrics allows for echo labs to excel in the changing healthcare environment while receiving valuable feedback unique to the modality (Figure 1). **ImageGuideEcho provides the ideal mechanism for aligning diagnostic imaging with value-based care.** Through examination of these quality metrics, imaging physicians have the capability to both inform healthcare decisions and quantify quality improvement in a way that has not previously been undertaken.

# SHAPING THE FUTURE *of* CARDIOVASCULAR ULTRASOUND

*Fig. 1* Registry Platform

## ImageGuideEcho Data Elements

Under the leadership of Sherif Nagueh, MD, FASE, of Houston Methodist Hospital, ASE's Registry Committee has designed a phased data implementation model (Figure 2), which is scheduled to launch in the Fall 2017 with TTE data elements. Future phases of development include stress echo, TEE, and, later, pediatrics and congenital heart disease. ASE envisions the registry will provide a comprehensive picture of the field of echocardiography. By creating phased data implementation that coincides with advanced registry capabilities, **ImageGuideEcho is uniquely positioned to become the foremost authority on echocardiography data for physicians, hospital administrators, industry, researchers, and government.**

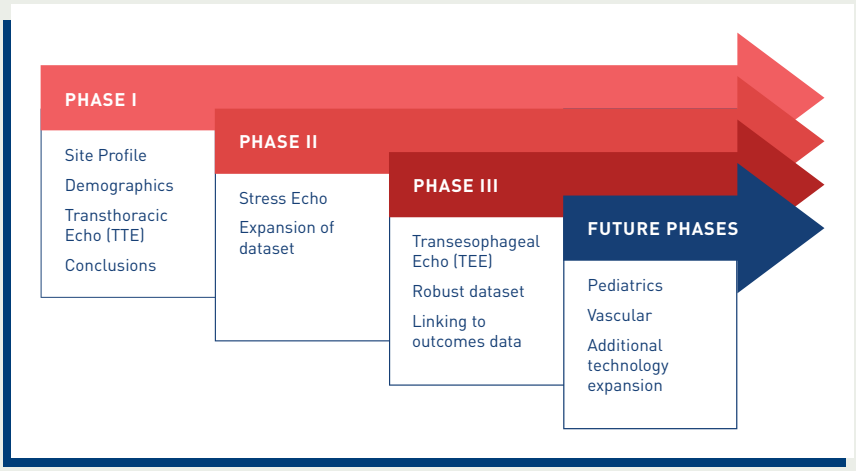


*Fig. 2* Phased data implementation

ImageGuideEcho collects data contained within the imaging report and aligns with ASE guidelines. This data includes information specific to patient demographics, baseline characteristics, indications, technology utilization (3D, strain, etc.), left ventricular size and function via both a global and 17 segment model, right ventricular size and function, the pericardium, all valves, and quantitative measurements. Data for ImageGuideEcho can be captured through PACS system integration via "Certified Software Reporting Vendors" and through web-based data collection, though manual entry is not envisioned to be the primary mechanism for data submission. Through PACS system integration, data will be pushed to the registry from the lab software to the registry vendor, FIGmd. This process has been widely and successfully utilized in a variety of other clinical data registries and ensures maximum lab participation with nominal inconvenience.

By gathering this extensive data, ImageGuideEcho will serve as a resource for researchers and other stakeholders to demonstrate the utility of echo while identifying opportunities for improvement and highlighting existing best practices. **ImageGuideEcho offers the premier opportunity for harnessing the power of big data for the field of cardiovascular ultrasound.**

## ImageGuideEcho & the Future

The ImageGuide Registry platform has been developed with interoperability in mind both through the data elements collected, data element definitions, and data element mappings and interfaces that can be subsequently linked with other registries, EHRs, and clinical databases. As data within the registry grows, we will be able to answer key questions previously undetermined within the field of echocardiography, conduct comparative effectiveness research, and ultimately drive the field forward in quality, advocacy, and future viability, all while addressing the immediate needs of ASE members to fulfill MIPS reporting requirements.

## How to Get Involved

ImageGuideEcho launches Fall 2017! For more information on how you can be involved in advancing the field of echo through registry participation, please contact info@imageguideecho.org.

1. Gliklich RE, Dreyer NA, Leavy MB, editors. Registries for Evaluating Patient Outcomes: A User's Guide. 3rd edition. Rockville (MD): Agency for Healthcare Research and Quality (US); 2014 Apr. 1, Patient Registries. Available from: https://www.ncbi.nlm.nih.gov/books/NBK208643/
2. CMSS Primer for the Development and Maturation of Specialty Society Clinical Data Registries: First Edition. Council of Medical Specialty Societies (CMSS). January, 2016. Available from: cmss.org