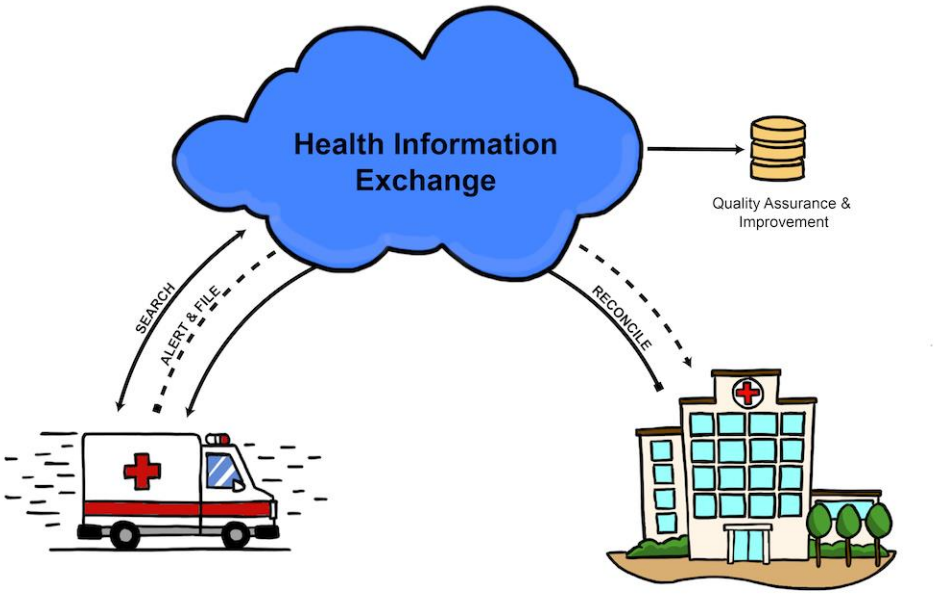
SAFR Overview



SAFR stands for SEARCH, ALERT, FILE and RECONCILE. During 9-1-1 events, EMTs and paramedics have access to patient health data via a search of the HIE. From this search, EMS providers are returned patients' history, medications, allergies, and health system encounters to help steer their care and navigate the patient to their correct hospital destination.

Upon selecting a hospital destination, the patient is pre-arrived at that destination and data is shared in a continuous, "live-feed" manner with emergency department clinicians. Alert information shared includes demographics, vital signs, electrocardiograms, history, allergies, medications, EMS findings, EMS treatments, and more.

Once care is completed and the EMT or Paramedic has completed their patient care report, the report is automatically transmitted and stored in the hospital emergency department document registry and linked to the patient. This represents a digitization and modernization of currently existing burdensome and manual process.

EMS then receives updates on key demographic, billing, and outcome data from the hospital as the patient receives care at the hospital and is ultimately discharged from the emergency department, admitted to inpatient, or discharged from inpatient.

Areas of Potential Hospital ROI

Automated EMS Care Record Incorporation. Any cost the health system incurs to receive, process, scan, or otherwise incorporate the EMS care record into their own patient care records.

> *E.g., UCSD analysis found they spent ~$80,000 per annum to process and scan EMS care records. This included a third-party scanning vendor.*

Reimbursement Optimization. Any reduction in care reimbursement the health system may incur due to missing EMS care records that are eliminated by automated EMS care record transmission. Relevant

to areas where EMS activation of high-cost care teams and systems must be shown. Areas of interest could include trauma team activations, interventional cardiology activations, and neuro/stroke team activations.

> *E.g., UCSD analysis found they missed ~$150,000 in reimbursement due to 4% error in EMS chart scanning that reduced the reimbursement amount across 14 trauma activations.*

Avoidable or Delayed Cath Lab Activations. Any avoidable interventional cardiology activations made by EMS providers, where improved clinical information such as 12 lead ECG would help ED clinical staff appropriately triage patient prior to activation. Any avoidable delays in interventional cardiology activations, where early data findings such as 12 lead ECG would help ED clinical staff identify cardiac events.

> *E.g., An MICN and Base Physician are able to review the patient ECG in real-time and compare with historical ECGs on record. Changes noted by the EMS provider are found to be the patient's baseline on old ECGs. Cath Lab team activation is deferred for further investigation in the ED.*

Patient Screening and Arrival. Efficiency improvements through pre-registration/pre-arrival of EMS patients and pre-arrival COVID screening in ED operations, patient placement, and patient arrival by ED Charge RNs and registration staff.

> *E.g., An ED Charge RN can view inbound EMS patients and review their initial COVID-19 screening by EMS to allowing for earlier patient placement planning and improved ED operations.*

Medication and Allergies Reconciliation. Any adverse events with medication interactions or allergic reactions that may have been avoided through reconciliation of EMS findings in an automated, high-fidelity manner.

> *E.g., A busy ED clinician cannot remember the patient allergies verbally reported by paramedics during patient care transfer. Through checking the EMS narrative, they identify an allergy to sulfa medications that were not known to staff or the patient.*

Patient Repatriation. Any care inefficiencies from a patient not being treated at their most frequent and recent ED care site where they are potentially known to ED clinicians, that may have been avoided by EMS providers knowing their encounter data through HIE queries.

> *E.g., A paramedic is deciding where to take a non-verbal, intoxicated patient. Through an HIE query, the paramedic identifies multiple recent encounters at one ED site. The paramedic transports the patient to that location where the patient is known to ED clinicians facilitating efficient patient triage, assessment, and care.*

This list is intended as a starting point for a potential participant to evaluate their own benefit of a SAFR implementation. There may be additional points of value that should be considered through examination of the SAFR model impacts and how those innovations may drive additional cost savings.