Innovation in Data for Improvement: Holistic Mortality Review
Rationale for the approach

As one of their first activities together, guiding coalitions from LSL hospitals embarked upon a holistic root cause analysis, aiming to integrate perspectives and evidence from across the care continuum to identify opportunities to improve outcomes for patients with AMI.

In many LSL sites, providers felt that there was little room for improvement in mortality rates. Further, traditional approaches to mortality review provided little data to inform them otherwise, due to several limitations:

1. In many settings, mortality reviews were completed only for cases in which something ‘went wrong’

2. In many settings, reviews focused on finding the most proximal preventable reason for a person’s death, rather than identifying all systems opportunities for improvement

3. Few review processes allowed for drawing of patterns ACROSS patient experiences to identify opportunities to improve.
The innovation

One LSL hospital set out to better capture opportunities for improvement, adapting the Mayo Clinic Mortality Review System for their context.

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**Guiding principle of Mayo Clinic Mortality Review System:**

“No one should ever suffer or die as the result of process of care or system failure.”

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“We were almost a top performing hospital. The question then became, “What do you do then? How do you improve?” We were at a loss not knowing what we could do. Our LSL facilitator heard all of this. She said, “I think you need to come up with your own strategies for X.” That was a good idea. Then she said, “Well, you’ll have to do a root cause analysis, a mortality chart review, and you have to find an instrument that records X.” I was just saying, “No, I don’t wanna do any of this stuff. This is down the rabbit hole.” But we did.

--- Guiding Coalition Member
For a larger and fully editable version of the form, please refer back to the LSL Toolkit
Shifting to more proactive communication

“The idea was, as deaths occur, let’s not only review the record, but let’s talk to folks face to face and see what kind of insights we might get. And as we go along, we’ll track this information and determine if there are any negative trends occurring.

The objective was within three days to have (physician) and one of the nurse managers interview the folks directly involved with that case and ultimately determine, “Hey, what could we have done differently? What could we have done better here?”

--- Guiding Coalition Member
“Frankly nobody had really spent much time figuring out how to do a mortality chart review. I think we were the first group in the institution to figure this out. For our own convenience, we put it on this piece of software called REDCap that allowed the reviewers to just enter the stuff in and then allowed us to spreadsheet it and take a look at it. That became the base product that now is going forward institution-wide for mortality chart reviews. Now, all of sudden, that’s become very popular.”

-- Guiding Coalition Member
Resistance to the process

Frankly, you can do all the mortality chart reviews you want. People are going to be very resistant to actually saying, “This caused this death.” No one is going to. If you look at the published data on it, the incidents of some screw-up or some delay or deficiency causing a death is generally one percent or less...It’s partly because it’s very hard to tell for sure just from reviewing a chart. It’s partly probably because nobody wants to actually go there because it’s a bag of worms.”

The reaction was mixed. There was a lot of resistance that we weren’t acting on data that was comprehensive. If you’re only looking at deaths, you’re looking at small numbers, and you’re looking at a select group. You don’t really know whether you have a deficiency somewhere or whether it just happened in the group that died and it actually isn’t deficient at all.”

--- Guiding Coalition Members
“Then we get a bunch of data, didn’t really know what it meant. I sat down with it and I plugged through it, and I started noticing things. These were only people that died, but I started noticing things….

We had 11 different domains of things that could go wrong. One of the big ones was delay. Never any delays in STEMI’s, but in NSTEMI’s delays. Then I started looking at, “Okay, what happens to the NSTEMI’s?” These NSTEMI’s that die, why do they die? Where do they die? … Basically we centered everything around those observations.”

--- Guiding Coalition Member
The example templates in this Practice Brief were generously shared by the Dartmouth-Hitchcock Medical Center.

They are intended to serve as a starting point for conversations about how to improve use of data to improve care for patients with AMI, and should not be interpreted as an endorsed clinical guideline.

We encourage hospital teams to adapt these approaches to their own needs and local context.