Acute Heart Failure Decision Support FAQ:

1) What are the criteria that trigger the HF BPA/Banner?

- In the East Bay pilot, we had stricter criteria (H/o HF or eligible chief complaint *and* HF specific orders, including BNP or IV diuretic). We found that this added specificity, but it was leaving out a lot of lower risk patients who we wanted to capture… so, we've decided to make the criteria more broad, and the HF Banner will now show up for any patient with a h/o HF *or* an eligible chief complaint (SOB, edema, CHF). There will be a lot more false positives, but we figured since this isn't a work interruption/hard stop, we wanted to try to capture a broader population.

2) Jardiance start -- recommend discussing this with cards first?

- Generally, we don't. It's an overall very well tolerated medication that's recommended across the EF spectrum (and even for patients *at risk* of developing HF). Cardiology is very supportive of us starting this medication for lower risk patients going home who don't have contra-indications (ESRD, Type I DM). It's a new medicine and some ED docs won't feel comfortable with it initially… we've found the rate of prescriptions by ED docs in the East Bay has gone up every month and I have not heard any negative feedback/adverse events.

3) Prediction rule -- do you have a slide or list of variables that feed into it?

- Generally, we included the clinical variables that ED docs would expect predict risk (and were drawn from prior studies describing risk in HF patients). This includes key co-morbidities, recent IP/ICU admissions, ED vital signs and lab values, weight today compared to baseline weight, SBP today compared to baseline SBP, EMS arrival vs no…

4) Is HBS on board?

- Yes – we are concurrently doing presentations to all of the HBS groups across the region)?

5) Is it really the ED doc's role to start HF medications?

up to interpretation… but yes, we feel this can improve care and outcomes and it can be safe and easy in the right patients)

6) What dose of medications are recommended?
The specific medications and starting low-dose recommendations are on the Report.

7) Do I have to wrench in the Report to see it?

For patients who meet "HF Banner" criteria, no; but for some patients who don't have an eligible CC or don't have a H/o HF, you may still want to access the Report. You can wrench in the Report for these patients).

8) It looks like the AHA recommendations include an ARNi (over ACEi/ARB) for HFrEF patients. Why does the Report not include a recommendation for an ARNi?

Our cardiology team would like to lead the starts on ARNis given their higher cost and need for closer monitoring. They can consider transitioning patients from ACEi/ARB to ARNi down the road as applicable).

9) Is AFM on board? Do we need to alert the PMD if we start a new medication?

Yes, AFM leadership is on board – it's a good idea to route your note to the patient's PMD if you start a new medication. The medication guidelines we suggest in the report are the same ones on the NCAL guideline website and the same as the AHA guidelines, so there is nothing that should be controversial here.

10) Will the jardiance and spironolactone recommendations will not show up if a contraindication exists - for example will it know not to recommend jardiance in a patient with a gfr < 20?

Patient-specific logic for contraindications is the ideal state for the Report – we are not there yet (the HealthConnect team needs more time to create this logic) -but the general indications/contra-indications are listed.

11) When we Rx Jardiance or Spironolactone to KP members as an outpt, does the pharmacy banner get triggered if there are contraindications (ie: Type I DM for Jardiance, or creatinine issues)? Are there links to Rx'ing guidelines in the AHF worksheet for these outpt meds (Spironolactone, Jardiance).

Unfortunately we don't have the ability yet to add logic around contraindications. We'd like to – the HealthConnect knows we'd like to do this, but its on the wish list for now. There are links to the Rx guidelines (both AHA and NCAL) on the AHF Report for these meds.

12) Is the AHF banner able to pull data in from Care Everywhere? (I think we addressed this and the answer was "no")

Not yet. That would a great addition in the future.

13) One doc wanted to know all the datapoints that are utilized in the Regression model.

We provide a link in the Report to the manuscript which highlights all the datapoints (predictor variables) that are in the prediction model. There are 60+ variables, so too many to put in the Report.

We will list the top 15 variables in the FAQ document (they are the clinical variables you'd expect, like troponin, EMS arrival, BP, Creatinine, BNP elevation, and weight).

14) On the liability front: there is concern from some docs that this is not validated outside of KP in published data and could leave them open to risk. (I feel there is tons of data to support individual components of the program, but unclear if the integrated model has been validated) This is probably why we are doing the study and I'm sure this has passed IRB review. Maybe I need a list of references to appease a few docs?

I think you can explain this in a few ways. 1) The risk prediction model is meant to assist with clinical decision-making (not to replace it). 2) There are several studies using similar ED CHF risk models, including a recent NEJM article in Canada showing use of a risk model in the ED saved lives and reduced hospital admissions. We can add citations to these in the FAQ document. 3) In general, having a KPNC standard for management of these patients provides some medical legal protection. 4) There is Level 1a evidence (highest level of evidence) for use of the suggested medications that we note in the AHF report, and these recommendations are the same recommendations as those in the AHA and NCAL guidelines.