Data Supplement S3. Summary of Structured Panel Interactions

High Consensus Items to be Re-Rated/ Justification

Q3. (Definition). Inability to maintain postural tone
[ALTHOUGH THIS ITEM WAS RATED AT 84% ON FIRST ROUND, THERE WAS THE OBSERVATION THAT SYNCOPE MAY OCCUR WHILE LYING, MAKING IT DIFFICULT TO APPLY THIS ELEMENT. THIS WILL BE RE-RATED]

Q20 (Outcome). Syncope-related death.
[ALTHOUGH THIS ITEM WAS RATED AT 84% ON FIRST ROUND, SEVERAL MEMBERS QUESTIONED THE FEASIBILITY OF ASSIGNING A DEATH TO 'SYNCOPE-RELATED' CAUSE. THIS WILL BE RE-RATED]

Item Changes/ Justification
Changes are underlined

Q13. (Outcome Timeframe) An ED based risk stratification tool should identify serious outcomes that are recognized during the ED evaluation
[SEVERAL SUGGESTIONS TO CREATE A DISTINCT QUESTION FOR REPORTING OF EVENTS IDENTIFIED IN ED, VS 'PREDICTING' SUCH EVENTS]

Q13A. (Outcome Timeframe). ED based risk stratification research study should report serious outcomes that are recognized during the ED evaluation.
[NEW ITEM, IN RESPONSE TO ABOVE SUGGESTIONS]

Q90. (ECG Abnormalities). Prolonged QRS > 120 ms
[SEVERAL SUGGESTIONS TO CHANGE THRESHOLD FROM 100MS TO 120MS]

Q178. (Predictor) Hematocrit and/or Hemoglobin
[SUGGESTION TO COMBINE HEMATOCRIT AND HEMOGLOBIN ITEMS]

Standardized Definitions and Data Elements ED Syncope Risk Stratification Research

Summary of Panelist comments

Q3. (Definition) Inability to maintain postural tone (84% rating for strong agree or agree)
-'Q3 is not necessary: you may have syncope while lying'

Q7. (Definition) Due to global hypoperfusion (63% rating for strong agree or agree)
-Clarification that items Q1-7 are positive definition elements; Q8-12 are negative (e.g. EXCLUSION) definition elements
-Several comments strongly advocating for use of ESC pathophysiology based definition:
 'This issue has been settled by ESC'
-Several comments: 'impossible to consistently determine mechanism in ED setting'
-'Use of negative elements (e.g. seizure, trauma, intoxication) approximates intent of ESC'

Q11. (Exclusion criteria). Exclude head trauma followed by LOC (79% rating for strong agree or agree)
-Several comments 'should exclude such patients as they contaminate study group'

Q12 (Exclusion criteria) Hypoglycemia as presumptive cause of LOC (88% rating for strong agree or agree)
-'hypoglycemia is not a cause of syncope'
-Several comments 'in clinical practice, 'obvious' hypoglycemia may be coded as syncope; this item reduces contamination of study group'

Q13. (Outcome Timeframe): Identify serious outcomes that are recognized during the ED evaluation (78% rating for strongly agree or agree)
-Several comments for and against; here is a sampling:
-'I am concerned that this may weight analyses towards 'obvious' conditions (e.g. pt arrives with unstable arrhythmia noted on monitor or ECG while in the ED), which are far more common than 'occult' conditions. (e.g. pt who develops unstable arrhythmia after the ED evaluation is complete)'
-'I feel quite strongly that outcomes in ER should be excluded. They are self evident. We need to focus on preventable morbidity and mortality after the ER.'
-'Big advocate for Q13: I think it is important to know which outcomes were recognised in the ED as arguably a clinical decision rule is not necessary to diagnose these. Whilst I think all outcomes should be included in analysis it is imperative that any CDR is not just picking up obvious conditions'
-Several comments 'should separate reporting from predicting such event; even if you don't think it makes sense to 'predict' such events, they should be at least described; suggestions to break this into two distinct items'

Q18 (Outcome) All-cause mortality as a relevant outcome (71% rating for strong agree or agree)
-'Big advocate for Q18: There is some argument that some prognostic markers for syncope just select a group of patients with high morbidity and at high risk of death not necessarily syncope related. All cause death is a nice hard endpoint and is obviously also important to know about.'
-'all cause mortality may include non-syncope related deaths, e.g. due to cancer'
-'may require matched control group without syncope to interpret all-cause death rate'

-Several comments 'important to include all deaths, as it may be difficult/ impossible to assign cause or relatedness to syncope'

Q20. (Outcome) Syncope-related death as relevant outcome (84% rating for strong agree or agree)
-'I think there are serious ascertainment challenges categorizing a death as 'syncope-related), particularly for out-of-hospital deaths.'
-'I agree entirely that defining syncope related death is extremely difficult and would not include it. We attempted to do it as a secondary aim for the XXXX study but it was extremely difficult to define so we reported it but didn't take it any further.

Q26. (Outcome) Sinus bradycardia<40 (65% rating for strong agree or agree)
-'These items seem very important because might change the ED decision making towards PM implant or patient continuous monitoring'

Q27. (Outcome) Sick sinus syndrome as relevant outcome (74% rating for strong agree or agree)
-'Probably needs pacemaker'
-'Question whether indications for pacemaker should be grouped with Q35 (implantation of pacemaker'
-Several comments 'should probably keep diagnoses separate from interventions'

Q28. (Outcome) Sinus pause > 3s (59% rating for strong agree or agree)
-'These items seem very important because might change the ED decision making towards PM implant or patient continuous monitoring'

Q32. (Outcome) Junctional/ idioventricular rhythm (65% rating for strong agree or agree)
-'These items seem very important because might change the ED decision making towards PM implant or patient continuous monitoring'

Q35. (Outcome) Pacemaker or ICD malfunction with pauses (77% rating for strong agree or agree)
-'Probably needs intervention'

Q43 (Outcome). Aortic stenosis $\leq$1 cm^2 (71% rating for strong agree or agree)
-'Advocate for Qs 43 or 65: It is important to include known causes for syncope in the relevant outcomes. AS is a known cause and must be included somewhere'

Q59 (Outcome). Subarachnoid hemorrhage (73% rating for strong agree or agree)
-'Advocate for Q59: Again it is important to include known causes for syncope in the relevant outcomes. SAH is a well known cause of syncope.

Q65 (Outcome). Cardiac Valve surgery (77% rating for strong agree or agree)
-'Advocate for Qs 43 or 65: It is important to include known causes for syncope in the relevant outcomes. AS is a known cause and must be included somewhere'
Q90 (ECG Abnormalities). Prolonged QRS (70% rating for strong agree or agree)
-'is it the inclusion of QRS prolongation that people object to of the value used - as with Aortic Stenosis should we give people a choice of values ie '100' or '120' or 'not include at all' in the next round?'
-Several comments 'threshold of 100 ms may not be clinically relevant; suggest 120 ms to improve specificity)

Q104. (Predictor) While working (59% rating for strong agree or agree)
-'like driving, some work setting not only may promote syncope but also shift a low risk syncope towards a life threatening condition for the subject and third party'

Q118. (Predictor) Post-prandial (70% rating for strong agree or agree)
-'Postprandial hypotension is common among elderly people, and sometimes is responsible for otherwise unexplained syncope.'

Q126. (Predictor) Any prodromes lasting >5 seconds (74% rating for strong agree or agree)
-'Duration of prodrome must be collected as a predictor variable'.

Q131-151 (Predictors)
-'consider grouping items by presumed mechanism, e.g. pain-related items should be next to each other; items suggesting vaso-vagal mechanism should be next to each other.'
-others note that symptoms suggestive of vaso-vagal may also be seen in other causes of syncope, e.g. nausea does not exclude cardiac syncope
-'Items about pain (head, chest, abdomen) may provide important information about the cause of syncope.'

Q151. (Predictor) First syncope episode prior to age 35 (78% rating for strong agree or agree)
-'is this useful - what is the rationale behind the aged 35 cut off - Many 80 year olds have there first presentation of vasovagal syncope at the age of 80??.'

Q167. (Predictor) Pulse oximetry on room air (60% rating for strong agree or agree)
-'we do believe that also item 167, pulse oximetry on room air, is important, easy to obtain'

Q178. (Predictor) Hematocrit (74% rating for strong agree or agree)
-'again is this a difference of opinion as to which of two possible definitions to use - should we give people a choice of 'haematocrit' or 'haemoglobin' or 'not include at all' in the next round?'

Q179. (Predictor) Hemoglobin (77% rating for strong agree or agree)
-'again is this a difference of opinion as to which of two possible definitions to use - should we give people a choice of 'haematocrit' or 'haemoglobin' or 'not include at all' in the next round?'