To: Participating Physicians and Healthcare Providers

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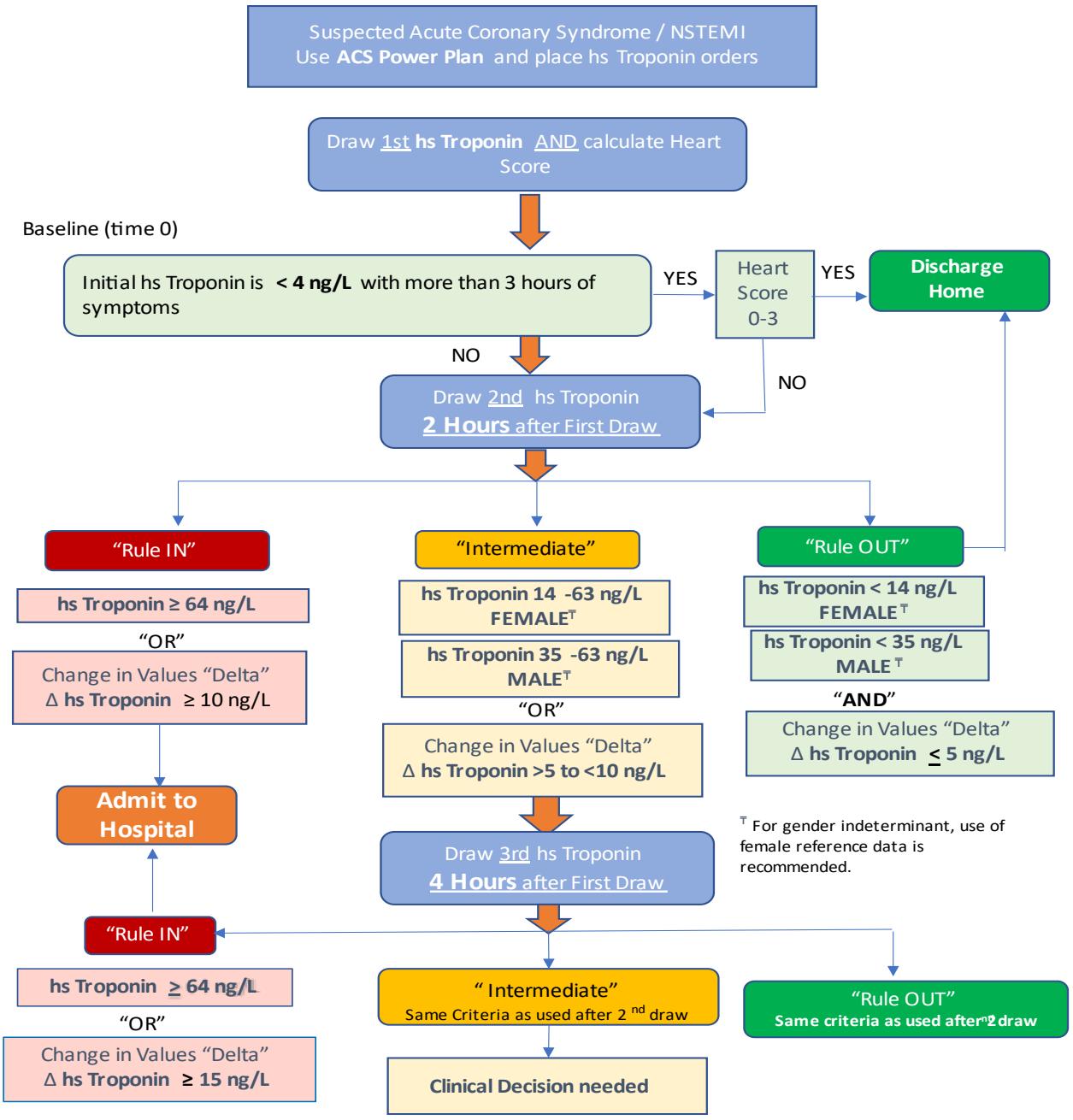
RE: ***Introducing high sensitivity (hs) troponin assay and algorithm***

Beginning **June 6, 2023**, troponin testing will be performed using the high sensitivity assay on the automated Abbott Alinity instrument at the Chemistry Laboratories of both Kent Hospital and Women & Infants Hospital. This assay offers the advantages of a lower limit of detection (<3 ng/L), sex specific reference ranges (<14 ng/L female; <35 ng/L male), and a clinical testing algorithm to allow for rapid rule out of acute coronary syndrome (shown below).

The new troponin assay is ordered as *hs troponin* or as an ***ACS PowerPlan*** that includes testing at baseline, 2 and 4 hours according to the algorithm developed with laboratory guidelines, published clinical studies, and local cardiology and emergency care physician leaders. The algorithm is available when ordering in the *PowerPlan*/*Order Set*. Once acute coronary syndrome is ruled out or ruled in, any subsequent unnecessary troponin tests in the series should be canceled by the ordering provider.

Note that the unit of reporting is **ng/L** for hs troponin, and this differs from the unit previously used for the contemporary troponin assay. The critical values for hs troponin are 64 ng/L, as well as delta values of 10 ng/L (2 hour) and 15 ng/L (4 hour).

Laminated copies of the algorithm will be available to assist you with conversion to this new test. To request a copy or for other questions, please call the Chemistry Lab at Kent Hospital (401-737-7000, x31384) or Women & Infants Hospital (direct: 401-430-1239 or 401-274-1122, x41239).



hs-Troponin results should be used with other diagnostic information, patient symptoms and clinical judgement as an aid in the diagnosis of acute coronary syndrome.
Adapted from ESC Guidelines, European Heart Journal , 2020 and Hughes et al., Clinical Biochem . 2023.

A critical value of ≥ 64 ng/L or delta ≥ 10 ng/L at 2 hours or delta ≥ 15 ng/L at 4 hours will be called.