acceptability curve showed 100% acceptability of MT at the willingness to pay (WTP) of US$40 000 for the eight countries.

Conclusion MT is efficient versus MM alone for patients with low ASPECTS in eight countries across Europe. Patients with a large ischemic core could be treated with MT because it is both clinically beneficial and economically sustainable.

Disclosure of Interest Nothing to disclose.

2.2 ISCHEMIC – Imaging

**005/57 VALIDATION OF A NOVEL MULTIPHASIC CTA PERFUSION TOOL COMPARED TO CTP IN PATIENTS WITH SUSPECTED ACUTE ISCHEMIC STROKE**

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Introduction A recently developed multiphasic-computed tomography-angiography (mCTA) tool generates perfusion maps, similar to CT-perfusion (CTP) (i.e., mCTA-perfusion [mCTAp]).

Aim of Study To validate the clinical utility of mCTA.

Methods In this multi-reader-multi-case analysis, we included baseline images: mCTAp(StrokesSENS-algorithm) and CTP (4D; GE-Healthcare) from 121 randomly selected patients whose scans were not part of algorithm-development. After excluding 2/121 scans due to poor image-quality, three experienced radiologists read Tmax- and rCBF-maps generated by the test(mCTAp) and reference(CTP) modality. The two reading sessions were separated by 5-days with randomized reading order. Core-laboratory imaging assessments that used NCCT, mCTA and CTP were considered as ground-truth. We used ‘reader’ as a random-effect to calculate the diagnostic performance for both modalities (mCTA-CTP) regarding ischemia detection and side/location. Interpretation-time and inter-rater variability were compared across the modalities.

Results AUCs(95%CI) for detecting ischemia using mCTAp and CTP were 0.85(95%CI0.8–0.9) and 0.84(0.8–0.9) respectively (p=0.43). AUCs for the affected side were 0.94(0.92–0.97) and 0.96(0.94–0.98) (p=0.69) respectively; for detecting LVO were 0.84(0.8–0.9) and 0.86(0.8–0.9), (p=0.31) respectively; M2-or-distal occlusion were 0.79(0.73–0.84) and 0.88 (0.83–0.92) (p=0.22) respectively; for ACA-occlusion 0.82 (0.66–0.98) and 0.93(0.82–1.00) (p=0.15) respectively and for PCA-occlusions 0.9(0.8–1) and 0.99 (0.98–0.99) (p=0.01) respectively. The median(IQR) time for image interpretation was 62s(IQR 46–78) and 59s(IQR 42–69) for mCTA and CTP respectively (p=0.15). Fleiss’ kappa-values for inter-rater reliability in detecting ischemia were 0.5 and 0.8 for mCTA and CTP respectively.

Discussion mCTA shows similar performance compared to CTP in assisting readers to detect ischemia and its side/location, requiring less radiation exposure, acquisition time and contrast-dose compared to additional-CTP, but mainly as it relates to proximal vessel occlusions.

Disclosure of Interest Dr. Menon holds patents on systems of triage in acute stroke, for LVO detection and for mCTA, and stock ownership in Circle Cardiovascular Inc. Dr. Bala has nothing to declare. Dr. Duszynski is an employee of, and holds stock options for Circle Cardiovascular Imaging Inc. Dr. Nayem Pinky, Dr. Golan and Luis A Souto Maior Neto are