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Urine Colorimetry for Therapeutic Drug Monitoring of Pyrazinamide during Tuberculosis Treatment

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Highlights

- Our objective was to determine whether a colorimetric test of urine can identify tuberculosis patients with adequate pyrazinamide exposures, as defined by the serum C_{max} above a target threshold.
- The urine colorimetric assay was 97% sensitive and 50% specific to identify HIV/tuberculosis patients with pharmacokinetic target attainment, with an area under the ROC curve of 0.81 (95% confidence interval 0.60, 0.97).
- Future work will focus on refinement of the approach, with the goal of developing a simple, point-of-care, test that could be available for therapeutic drug monitoring during anti-tuberculosis therapy in high-burden settings.