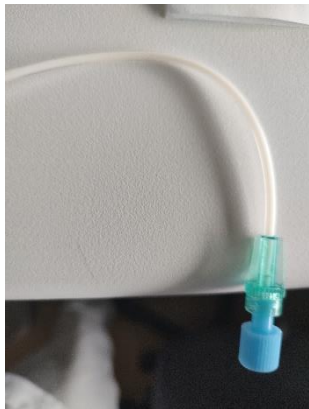


The Use of Raman Spectroscopy in a Hospital Pharmacy Setting

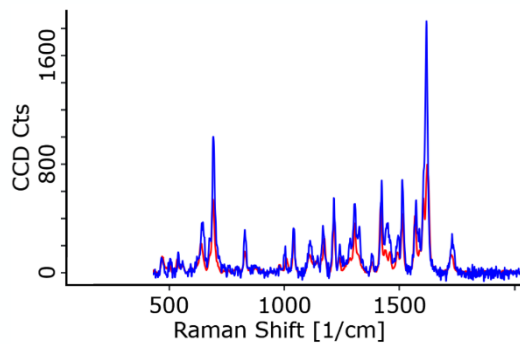
Authors¹: Ellen Hagesaether, Randi H. Svendsen, Espen Gleditsch, Ingeborg Karboe, Serwornu Dogbeten, Sarah M. Fischer, C. Niklas Nilsson

Improved Patient Safety



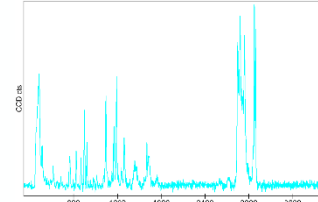
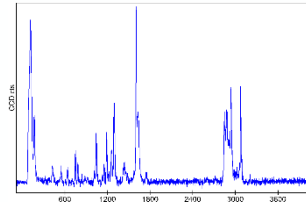
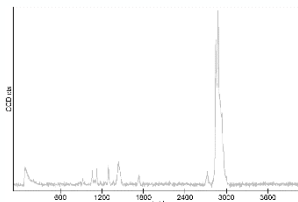
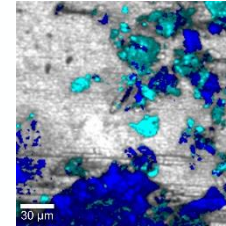
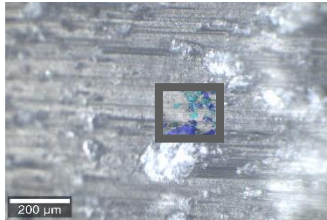
Red spectrum: precipitation inside infusion tube

Blue spectrum: Fitted component mix: 74% Midazolam (in house database)/26% infusion tube



The precipitation was successfully identified as midazolam Score / HQI: 87

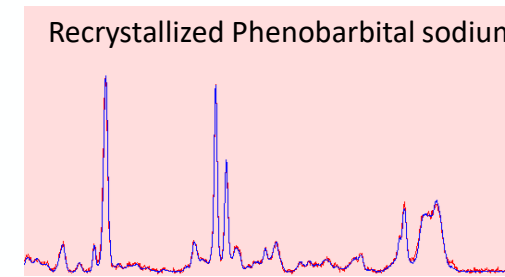
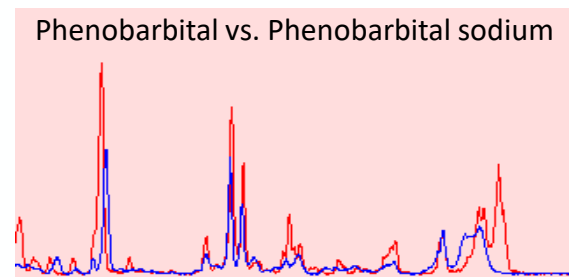
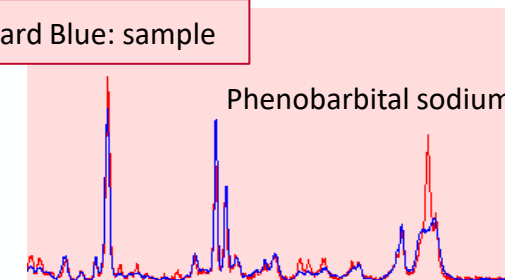
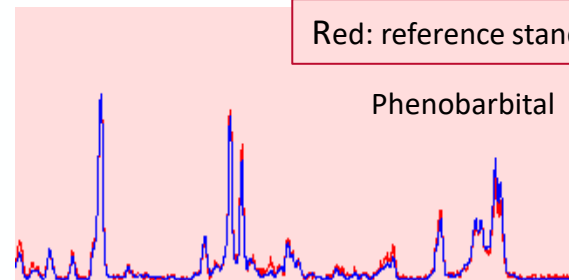
Quality Control The surface of an ASA* suppository was scanned



Hard fat Score/HQI: 99,5 74% ASA/26% Hard fat 52% ASA/48% Hard fat

Identification of Phenobarbital & Phenobarbital Sodium

Red: reference standard Blue: sample



Conclusion:

Raman spectroscopy has high identification abilities, with only minimal sample preparation and time, that can be successfully utilized in the hospital pharmacy.

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*acetylsalicylic acid