Paraquat Dithionite Urine test (DUT)



Paraquat Dithionite Urine Test (DUT) provides qualitative confirmation of paraquat exposure.

Toxicity / Risk Assessment

See Separate Paraquat Guideline

Dithionite Urine Testing (DUT) should NOT delay immediate decontamination or resuscitation

DUT is available free from Syngenta Australia - (02)88768444 or Sydney.Reception@syngenta.com

Example of DUT



Mortality Likelihood (%)

- Vomiting or oral burns ≈ 50%
- Dithionite Urine Test (DUT): Negative < 5%, Positive ≈ 66%
- DUT positive AND Creatinine >230 μ mol/L \approx 95%
- DUT positive AND Creatinine rise >115 µmol/L in 24hrs ≈95%
- Generalized peripheral burning sensation at 24 hours ≈ 75%

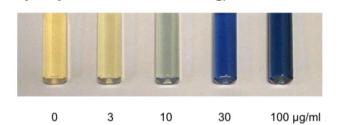
Instructions

- Don gloves and eye protection
- Confirm test is in date
- Collect 10 mL of urine in a clear container
- Add Sachet A (2g sodium bicarbonate) and shake gently
- Add Sachet B (1g sodium dithionite) allow effervescence to subside then shake again
- Once the mixture has settled, view colour against a white background

Interpretation

Positive result: **a blue or green colour** which confirms significant systemic paraquat exposure

Detects concentrations of paraquat in urine **down to 2 ug/mL**



A **negative** spot test should be **repeated 6 hours** post-ingestion

A **positive** spot test should be *discussed with a clinical toxicologist ASAP*

Disposition

- Patients who are clinically well without oral burns and two negative dithionite urine tests 6 hours apart are unlikely to have experienced a significant exposure (discuss with a Clinical Toxicologist)

AUSTIN CLINICAL TOXICOLOGY SERVICE GUIDELINE

POISONS INFORMATION CENTRE: 13 11 26