

ORAL FLUID DRUG TESTING

Applications and Limitations

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OVERVIEW

- Scientific literature investigating saliva drug testing for >20 years
- 1999 - First commercial saliva drug testing kit available - *Cozart[®] RapiScan*
- Since 1999 - significant advances in research and development of on-site saliva tests
- 2004 - Committee formed to develop *AS4760* for workplace saliva based drug testing
- 2006 - Pilot project for random roadside saliva drug testing in Victoria completed. Expansion of testing announced due to success. Other states to follow.

Oral Fluid (Saliva) Testing

Main features/advantages...

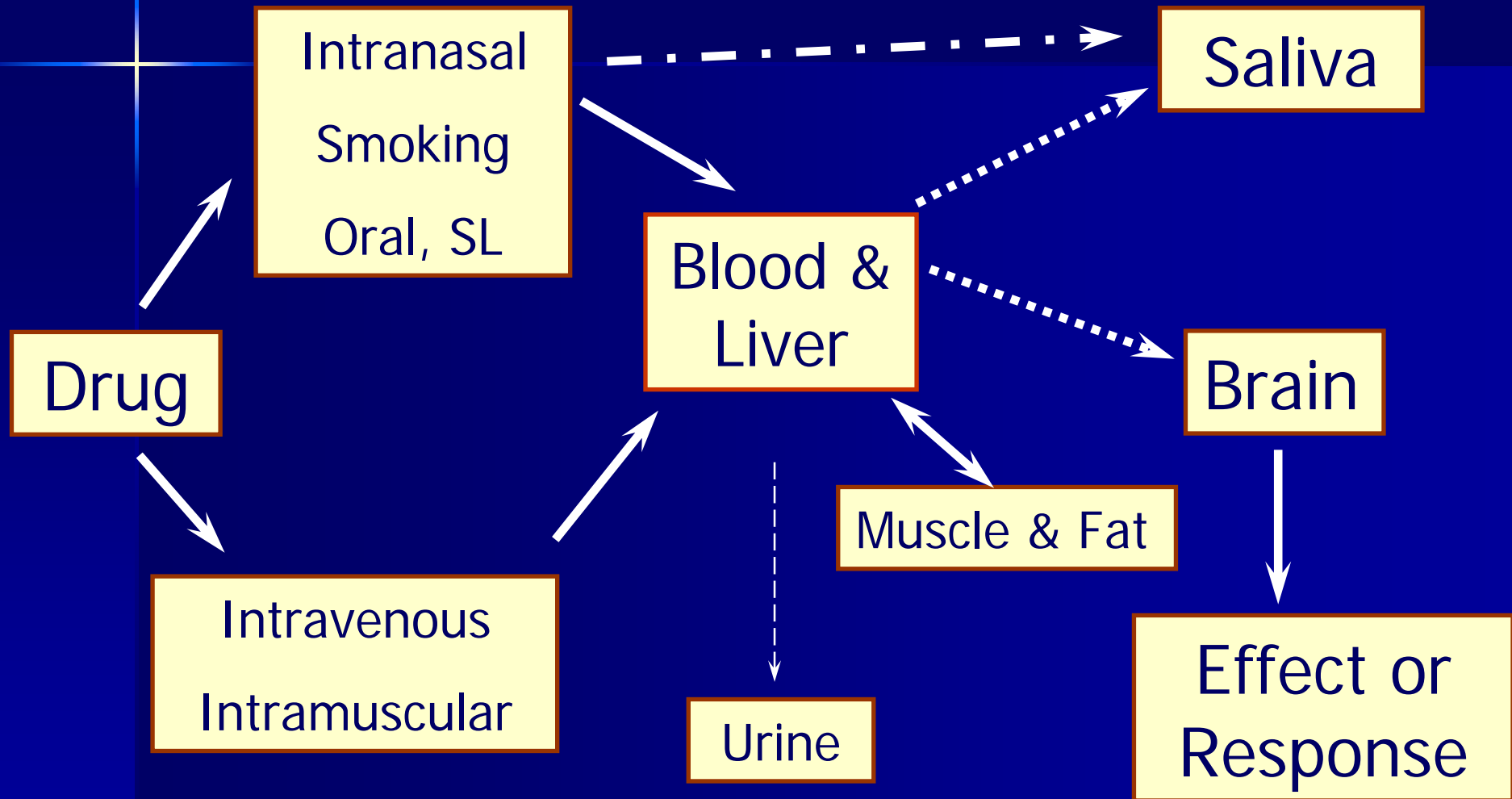
- Non-invasive collection
- Easy to supervise
- No adulteration or substitution
- Short windows of detection*
- Recent drug use
- Oral Fluid testing detects drugs that are in the blood at the time of testing
- Detects many drugs in the parent form eg: d9-THC

Oral Fluid (Saliva) Testing

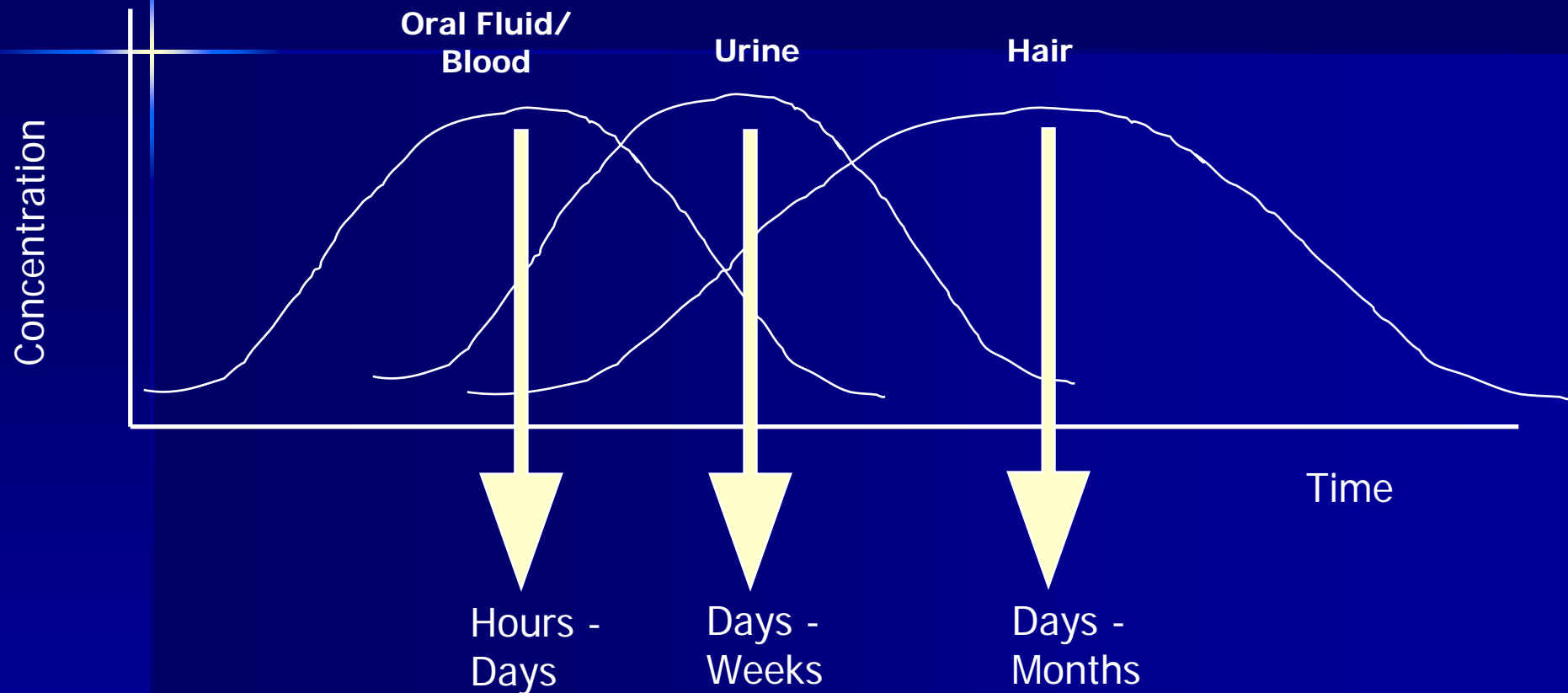
Limitations...

- Volume of saliva is low
- Can be slow to collect on occasion
- Drug levels tend to be lower in saliva
- Short windows of detection* (esp THC)
- Less scientific research/validation available
- Until now, no Australian Standard

How do drugs get into Saliva?



Generalised Windows of Detection



Please
Remember



- ◇ Dose & Route
- ◇ Frequency of dose
- ◇ Individual Metabolism

How does saliva testing work?



Saliva collection swab with volume adequacy indicator



A disposable test cartridge which evaluates the oral fluid sample for the presence of drugs



A hand held instrument which interprets and digitally displays the results eliminating user error and subjectivity

Safety Issues

Saliva testing is a relatively clean and safe process, however....

- Oral Fluid should be handled in accordance with safety precautions for all body fluids. (Eg: Gloves must be worn by collection staff)
- Collection swab should be sterile and not contain saliva stimulating agents.
- Design of collection device should ensure a hygienic process.

Applications

- ✓ Detection of recent drug use
- ✓ "Fitness for Duty" workplace drug policies
- ✓ Roadside Drug Testing
- ✓ Law enforcement eg: Home Office Offenders
- ✓ Methadone compliance monitoring
- ✓ Some abstinence monitoring eg: cocaine, opiates, amphetamines
- ✗ Abstinence monitoring when cannabis is the key drug of interest
- ✗ Detection of historical drug use eg: Weekly testing

ROADSIDE DRUG TESTING

- Random Roadside Drug Testing has been underway in Victoria since Dec 04
- 2 years of rigorous evaluation prior to implementation
- 13,000 tests conducted so far
- High positivity rate – 1/45 drivers
- Excellent results for Cozart – good detection of THC
- Under evaluation in NSW & SA
- Qld Uni of Technology conducting research trials with Cozart RapiScan in relation to roadside testing in QLD



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THANK YOU!