

DoD Update

COL TIM LYONS
FORENSIC TOXICOLOGY
ARMED FORCES MEDICAL
EXAMINER

CAPT Kevin Klette, USN
Director, Drug Testing and Program
Policy
Office of the Assistant Secretary of
Defense for Health Affairs

Historical Perspective

- 1981: heroin (opiates), barbiturates, amphetamines, PCP, cocaine, THC, and methaqualone
- 1984: removed methaqualone from the panel
- 1987: added LSD
- 1997: added MDA, MDMA, MDEA
- 2000: added LSD metabolite O-H-LSD
- 2004: added heroin specific screening
- 2005: removed barbiturates, added oxycodone/oxymorphone
- 2006: removed LSD and O-H-LSD
- 2009: removed MDEA
- 2011: ???

DoD Panel of Tested Drugs

- Marijuana (THC)
- **Cocaine** (BZE)
- Amphetamine & Methamphetamine
- Designer Amphetamines / Ecstasy
- Heroin
- Oxycodone/Oxymorphone 20%
- Codeine/Morphine 20%
- Phencyclidine (PCP) 20%
- Special request testing conducted at AFIP
 - Barbiturates, benzodiazepines, synthetic opiates, ketamine, spice, salvia, (*etc.)

Steroids

- Probable cause and investigative cases only
 - 400 per year for DoD
 - 33% positive rate
- Contract with UCLA Lab
- Few litigated
- Legally purchased supplements –
 - What is a precursor and what is not?
 - Contamination with anabolic steroid

DoD Drug Testing Cutoff Levels

Drug	IA Cutoff	GC-MS Cutoff
	(ng/mL)	(ng//mL)
Marijuana	50	15
Cocaine	150	100
Amphetamine	500	100
Methamphetamine	500	100
MDMA/MDA	500	500
Heroin	10	10
PCP	25	25
Oxycodone/ oxymorphone	100	100
Codeine	2000	2000
Morphine	2000	4000

Historical Prevalence Testing

Year	Drug
2003	Benzodiazepines
2004	Oxycodone/Oxymorphone
2006	Methadone
2007	Ketamine and benzodiazepines
2009	Benzodiazepines
	LSD
	Opiate class: Morphine/Codeine Hydrocodone/Oxycodone Methadone

Why Do We Conduct Prevalence Studies?

- Concerned drug use/abuse may be missed with standard panel
- Concern from Commanding Officers
 - Replacement for alcohol (General Order #1)
- Military trends typically reflect those of civilian drug use/abuse
 - Increased availability and prevalence of prescription drug use
 - Concern about hydrocodone / hydromorphone use in the military
- To monitor drugs that have been recently dropped from the DoD testing panel (LSD)

Trends

- **AMP only**
 - Few d-meth
 - Most Adderall
- **“Spice”- synthetic cannabinoids**
 - Test for some parent and metabolites in blood and urine
 - Only investigative cases
- **Other designers**
 - Mephedrone
 - Proposed prevalence study
- **Prescription drug abuse**
 - Serious threat to readiness, safety, and health
 - Readily available legally and illegally
 - Proposed plan

Prescription Drugs

- **Proposed plan hydrocodone/hydromorphone**
 - Start 4th Qtr FY11
 - Initially pulse tested at 20-25%
 - Use opiate kit for screen
 - Expect high positive rate
 - Issue- high number of valid prescriptions
- **Benzodiazepines**
 - Start early FY 12
 - 20-25%
- **Dependent on funding**