



# Navy Drug Screening Laboratory Jacksonville

## Screening News

May 2012

Volume 3, Number 3

### This Issue

- CO's Desk
- In Focus
- Discrepancy of the Month
- Drug Facts
- Ask the Expert

### CO's Desk

#### *Prescription Drugs, the Newest Threat....*



Prescription drug abuse is the use of any prescription medication in a manner or at an amount that is not directed by a medical professional (*e.g.*, prescribed to another individual, expired, *etc.*). Abuse of prescription drugs can produce serious health effects including addiction. Commonly abused prescription medications include opioids, depressants, and stimulants.

Opioids (pain-killing medications) include Oxycodone (*e.g.*, *OxyContin*®), Percocet®), Oxymorphone (*e.g.*, *Opana*®, *Numorphan*®) Hydrocodone (*e.g.*, *Vicodin*®) and Hydromorphone (*e.g.*, *Dilaudid*®). Central nervous system depressants, frequently used to treat conditions such as anxiety, include barbiturates such as Pentobarbital (*Nembutal*®) and benzodiazepines such as Diazepam (*Valium*®) and Alprazolam (*Xanax*®). Stimulants, used to treat conditions as varied as ADHD and obesity, include Dextroamphetamine (*Dexedrine*®), Methylphenidate (*Ritalin*® and *Concerta*®), and Amphetamine (*Adderall*®).

Long-term use of Opioids or depressants can lead to physical dependence and addiction. Opioids can produce drowsiness and constipation and, depending on the amount taken, can suppress breathing. Depressants slow down brain functions and, when combined with other medications that cause drowsiness (such as alcohol), can slow heart rate and respiration significantly. When taken repeatedly or in high doses, stimulants can cause anxiety, paranoia, dangerously high body temperatures, irregular heart rhythms, and/or seizures.

Starting this month, the Navy Drug Screening Laboratories (NDSLs) in Jacksonville, Great Lakes and San Diego, will be augmenting their prescription drug testing efforts by adding Hydrocodone and Hydromorphone to their testing panels. It is anticipated that, by late CY 2012, the NDSLs will further augment their prescription drug testing efforts by adding five Benzodiazepine to their testing panels.

### Contact Us

NDSL Jacksonville  
P.O. Box 113  
Bldg H-2033  
Adams Avenue  
NAS Jacksonville, FL  
32212-0113  
Comm 904-542-7755  
DSN 942-7755

*C. J. LeBron*  
*CAPT MSC USN*

## In Focus: Accessioning Division

### Did you know?

Information about the laboratory, including fact sheets and past newsletters, may be found at our external website: [www.med.navy.mil/sites/jaxdruglab/Pages/default.aspx](http://www.med.navy.mil/sites/jaxdruglab/Pages/default.aspx)



**FIGURE 1. ACCESSIONING DIVISION**

**(From left to right: Ms. Rosemary Mora, Ms. Lynne Freeman, Ms. Esther Hammonds, Ms. Arleshia Robinson, Ms. Deborah Janovic, Ms. Geronima Downard, Ms. Arliss Willis, Mr. Frankie Perry, Mr. Cory Sullivan, Mr. Flomen Olipendo, Mr. Arliss Walker, and Mr. Leevine Williams)**

The Accessioning Division, part of the larger Initial Testing Department, is the motor that drives the work at NDSL Jacksonville. Employees in this Division are responsible for receiving and accessioning all Service member urine specimens forwarded to NDSL Jacksonville by Navy, Marine Corps and Army commands for urine drug testing. Employees in this Division meticulously examine the shipping boxes, urine specimen bottles and DD Forms 2624 (chain of custody documents) to ensure that all discrepancies are identified and then collect up to 97 urine specimen bottles together into a laboratory initial screen batch. Once a batch is assembled, the Accessioning technician, handling only one Service member specimen bottle at a time, pours a small portion of urine (called an aliquot) into a uniquely-labeled aliquot test tube and then forwards the complete batch of these aliquots, including blind (hidden) quality control (QC) specimens to the Screening Division for initial drug testing for drugs of abuse. Knowing that each urine specimen has the potential to dramatically affect the career and livelihood of each Service member, the NDSL Jacksonville Accessioning Division technicians take great pride in handling their jobs in a professional manner reflecting their commitment to accuracy and timeliness.

## Discrepancy of the Month: PD = Package Missing Signature / Date

Did you know?  
Correspondence templates for various legal / customer support documents (*e.g.*, Technical Reviews, Summary Reports, Documentation Packages with or without the original urine Specimen Bottles, Discovery Responses) can be found at our external website: [www.med.navy.mil/sites/jaxdruglab/Pages/default.aspx](http://www.med.navy.mil/sites/jaxdruglab/Pages/default.aspx)

If you have read past issues of the NDSL Jacksonville Screening News and are now thinking to yourself that “this sure sounds familiar,” then you would be correct. We first covered this Discrepancy Code in March 2011; however, because we continue to assign this discrepancy frequently and it is one of the easiest submission issues to correct, we have decided to revisit it. The PD discrepancy code is assigned if the exterior of the shipping container does not have a signature and date IAW Service-specific urine specimen collection requirements.

The Urinalysis Program Coordinator (UPC) Handbook published by Navy Personnel Command states that “once the shipping container is ready to be sealed, the UPC shall seal all sides, edges, and flaps of the box with adhesive paper tape and then sign and date across the top and bottom of each shipping container.” This must be done before the shipping container is placed in a secondary, waterproof container.

Appendix E of the Marine Corps Personnel Services Manual states that the “Coordinator will ensure that each shipping container has the Coordinator’s signature over the seal to ensure integrity of the specimens.” It further states that this requirement applies to all methods of transportation including hand-carried urine specimens.

### **“INSIGHT” OF THE DAY**

Here is some free insider information regarding the PD discrepancy code. When this discrepancy is applied to specimens received at NDSL Jacksonville, it is applied to every specimen inside the same shipping container. For example, if there are 12 specimens in the same box and that box is not signed and/or dated IAW regulations, then 12 discrepancies are applied (one for each of the contained specimens).

On the other hand, when you are packaging 12 specimens for shipment and you sign and date over the seal of the shipping container, you are preventing 12 discrepancies from being applied to your submitting specimens and helping to ensure the forensic integrity of those specimens and the greater drug testing program.

Take this very important step to protect the careers and livelihoods of your Sailors, Marines, Soldiers and Airmen.

## Drug Facts: “Spice” (a.k.a. Herbal Incense, Smoking Blend, Herbal Blend)

Did you know? “Spice” is used to describe a diverse family of herbal mixtures marketed under many names. These products contain dried, shredded plant material (similar to potpourri) and, presumably, chemical additives that are responsible for their various psychological and physical effects.



FIGURE 2. EXAMPLES OF “SPICE” PACKAGING

**Description:** There are a huge number of herbal incense products collectively referred to as “Spice” that are advertised as incense / potpourri (and specifically label as not for human consumption) available for purchase on the Internet and in brick-and-mortar stores. Despite this use admonition, most individuals who purchase these products roll the packaged material into “joints” and smoke them in a manner similar to that done for marijuana. When smoked, these herbal mixtures give users a “high” very similar to that produced by marijuana (1). “Spice” and other brands of herbal incense products are made up of mixtures of exotic plant materials such as beach bean, water lily, blue lotus, honeyweed, and maconha brava (1). These plant mixtures themselves are not known to induce a “high”; however, most, if not all of these herbal incense products are laced with synthetic compounds that mimic  $\Delta^9$ -tetrahydrocannabinol (THC), the physiologically and psychologically-active chemical found in marijuana. Over the past few years, various laboratories have tested many of these herbal incense products and have found various quantities of synthetic cannabinoids including, but not limited to: AM-2201 and -2233; CP 47497; JWH-015, -018, -019, -073, -081, -122, -200, -203, -210, -250 and -251; and HU-210 (1-4).

**Common names** for these synthetic cannabinoid-containing products include Spice, K2, Dark Night, Genie, Ocean Blue, Yucatan Fire, Skunk, *etc.*

**Effects:** With the exception of HU-210, the other synthetic cannabinoids do not have the classic THC chemical structure (5-7). These drugs bind to the same brain receptors as THC and frequently exert effects in the body similar to those caused by THC; however, certain synthetic cannabinoids are far more potent than THC (5, 8). These synthetic cannabinoids were originally made in the scientific laboratories as

possible medications for the treatment of various illnesses (*e.g.*, traumatic brain injury, neurological disorders, multiple sclerosis) or as basic research tools for studying the human body's cannabinoid system (involved in the regulation of pain and the immune system). Unfortunately, use of / exposure to these synthetic cannabinoids can cause serious side effects to include delirium, panic attacks, paranoid hallucinations, seizures, tremors, *etc.*

**Trends:** “Spice” (and similar products) have been widely used in Europe and the United States and thus have come under scrutiny by various law enforcement authorities. Over the past few years, many countries have either banned “Spice” or are in the process of banning these herbal incense products (1). Herbal incense products that contain certain compounds (HU-210; JWH-018, -073, -200; CP-47497; and cannabicyclohexanol) are illegal in the United States since these compounds are listed as Schedule I under the Controlled Substances Act (5). Although many synthetic cannabinoids are not on this Schedule I list, per SECNAVINST 5300.28E, it is illegal for any Marine or Sailor to possess or consume any controlled substance analogue. Moreover, any substance used with the intent to induce or enable intoxication, excitement, or stupefaction of the central nervous system is prohibited and will subject the violator to punitive action under the Uniform Code of Military Justice (UCMJ) or adverse administrative action (or both).

**“Spice” Testing:** Submission procedures for “Spice” testing changed significantly with the March 2012 issuance of NAVADMIN 082/12 (Synthetic Compound Urinalysis Testing). Prior to this NAVADMIN, only urine specimens from Service members suspected of using “Spice” were tested at the Armed Forces Medical Examiner System's Division of Forensic Toxicology (AFMES) after an active report of investigation number (ROI#) was obtained from an investigating agency (*e.g.*, NCIS). The urinalysis testing directed by NAVADMIN 082/12 is separate and distinct from the current DoN urinalysis program and is similar to that in place for Steroid testing. Navy commands must obtain authorization and quotas from OPNAV 135 prior to collecting specimens for “Spice” testing. Once collected, these specimens are sent to NDSL Great Lakes where they are logged and then forwarded to a civilian contract laboratory for synthetic cannabinoid analyses. A synthetic cannabinoid testing capacity is being developed within the NDSL system and should be online in 2013.

#### **References:**

1. European Monitoring Centre for Drugs and Drug Addiction, Understanding the Spice Phenomenon (2009).
2. Auwarter V. Spice and other herbal blends: harmless incense or cannabinoid designer drugs? *Journal of Mass Spectrometry* **44** (5): 832-837 (2009).
3. U.S. Drug Enforcement Administration, Microgram Bulletin (March 2009).
4. Armed Forces Medical Examiner System, Division of Forensic Toxicology communications.
5. U.S. Drug Enforcement Administration publications.
6. Aung M. M. *et al.* Influence of the N-1 alkyl chain length of cannabimimetic indoles upon CB<sub>1</sub> and CB<sub>2</sub> receptor binding. *Drug and Alcohol Dependence* **60** (2): 133–140 (2000).

Did you know?  
In March 2012, the U.S. Navy began testing some Service member urine specimens for synthetic cannabinoids (THC-like compounds) in products such as “Spice.”

7. Weissman A, Milne GM, and Melvin LS Jr. Cannabimimetic activity from CP-47,497, a derivative of 3-phenylcyclohexanol. *Journal of Pharmacology and Experimental Therapeutics* **223** (2): 516-523 (1982).
8. Little PJ, Compton DR, Mechoulam R, and Martin BR. Stereochemical effects of 11-OH- $\Delta^8$ -THC-dimethylheptyl in mice and dogs. *Pharmacology, Biochemistry, and Behavior* **32** (3): 661-666 (1989).

---

## Ask the Expert

### 1. Is “Spice” dangerous?

Answer: Yes. “Spice” (and similar products) is dangerous because each product may contain an unknown quantity of an unknown number of synthetic cannabinoids (THC-like drugs) which may cause serious physical and psychological effects (*e.g.*, increased heart rate, elevated blood pressure, heart attack, stroke, agitation, confusion, hallucinations, psychosis).

### 2. How can my Command get Service member urine specimens and/or plant materials tested for “Spice”?

Answer: For Service member urine specimens not associated with an active investigative case, Navy commands should contact the Navy Alcohol and Drug Abuse Prevention (NADAP) office at the Navy Personnel Command:

>Ms. Dorice Favorite, 901-874-4400 (DSN 882), [dorice.favorite@navy.mil](mailto:dorice.favorite@navy.mil)

and Marine Corps commands should contact their Drug / Alcohol Program office:

>Mr. Eric Hollins, 703-784-9526, [eric.c.hollins@usmc.mil](mailto:eric.c.hollins@usmc.mil)

For NCIS / CID / AFOSI investigative cases, Commands should contact the Division of Forensic Toxicology, Armed Forces Medical Examiner:

>Mr. Joseph Magluilo, 302-346-8771, [joseph.magluilo@us.army.mil](mailto:joseph.magluilo@us.army.mil)

For testing of plant materials, Command should contact the U.S. Army Criminal Investigative Laboratory (USACIL):

>404-469-4631 (DSN 797) & [usacil@conus.army.mil](mailto:usacil@conus.army.mil)

### 3. Can Service Members use “Spice” for its intended purpose (*i.e.*, as an incense or potpourri)?

Answer: No. “Spice” is a generic term used for a variety of herbal incense products that are frequently spiked with synthetic cannabinoids (THC-like drugs). Possession of “Spice” (and similar products) is prohibited under SECNAVINST 5300.28E (Military Substance Abuse Prevention and Control) and OPNAVINST 5350.4D (Navy Alcohol and Drug Abuse Prevention and Control).

#### Did you know?

Many “Spice” products are sold as incense (which typically come as short cone or long stick forms) but more frequently resemble potpourri (loose plant materials).