FOUNDATION FOR ADVANCING ALCOHOL RESPONSIBILITY

Continuous Alcohol Monitoring

Continuous alcohol monitoring (CAM) technology (also referred to as transdermal alcohol monitoring) is designed to monitor alcohol consumption among offenders who consume alcohol and it is a common sanction applied to repeat offender drunk drivers. This device usually takes the form of an ankle bracelet that monitors and measures alcohol consumption 24 hours a day, seven days per week. Thus, it allows courts or other supervision authorities to determine whether offenders are compliant with abstinence orders.

CAM technology permits the detection of drinking by sensing alcohol that passes through the skin as it is eliminated from the body. The device tests samples of vaporous perspiration (sweat) collected from the air above the skin at regular intervals. Test results are transmitted to a base station and then relayed to a secure central website where the data can be accessed and reviewed by a monitoring authority. Actions can then be taken in response to violations a timely manner, ensuring that there is swift accountability.

Unlike an interlock, CAM does not prevent an individual from driving after consuming alcohol. The transdermal alcohol readings accurately reflect blood alcohol concentration (BAC), but there is a delay due to the process of absorption and elimination of alcohol from the body. As a result, this technology is commonly utilized to monitor drinking behavior and is often used in conjunction with or as a supplement to the alcohol interlock.

The costs associated with CAM technology are borne by the offender. There is a one-time installation fee and a daily monitoring fee that typically ranges between $10-15.

Research Highlights:

Many studies have established that consumed alcohol can be measured in perspiration through transdermal testing (Robertson et al., 2006). A variety of experimental studies have shown this to be a valid method to determine whether an individual has consumed alcohol (Sakai et al., 2006). Additional research has examined the effectiveness of the use of this technology:

- A Michigan Department of Corrections study (Bock, 2003) found that the device was able to detect circumvention of alcohol test sampling, reliably ensure that test samples are from the intended test subjects and detect drinking episodes around the clock regardless of subject's schedule or location. Offenders who participated in the study reported that the device was "a fast-acting deterrent and a preferred method of testing because of the freedom to maintain work and family schedules."
- Flango and Cheesman (2009) compared a group of 114 DWI offenders who wore SCRAM[1] with a comparison group that was not subject to the technology. While there are limitations to this study on account of the small sample size, the researchers found that similar to interlock, the device is effective

[1] Secure Continuous Remote Alcohol Monitoring (SCRAM) is a CAM device developed and marketed by Alcohol Monitoring Systems (AMS). It is the most widely used CAM technology.

while worn and recidivism increases once the offender is no longer subject to the technology. Additional findings include:
    - The device is most effective with repeat offenders (e.g., two or more DUI convictions).
    - The device should be worn for at least 90 days. Offenders who wore the device for more than 90 days recidivated at half the rate of those who wore it for less than 90 days (10% vs. 20%).
- The National Highway Traffic Safety Administration (NHTSA) conducted six case studies (McKnight, Fell, and Auld-Owens, 2012) of programs that utilize transdermal alcohol monitoring. The researchers determined that transdermal monitoring is generally effective in deterring offenders from drinking alcohol and helps enforce abstinence. In addition, they found that non-compliant offenders are likely to be identified as violations are reported in a timely-fashion to the appropriate authority. Continuous alcohol monitoring was also deemed to be more effective for monitoring drinking than periodic/random testing. Lastly, CAM provides an alternative to incarceration and can reduce the number of visits to case managers and testing appointments.
- NHTSA released an evaluation (Tison et al., 2015) that examines the impact of SCRAM on DUI offenders in programs in Nebraska and Wisconsin. Key findings include:
    - There was virtually no recidivism during the period that offenders were required to wear the SCRAM device.
    - Though not statistically significant, SCRAM offenders recidivated at slightly higher rates in both states when compared to a matched comparison group (7.6% vs. 6.2% in Wisconsin and 9.8% vs. 7.7% in Nebraska). This is likely explained by the high-risk nature of offenders ordered to wear the device.
    - Recidivism occurred in a shorter timeframe for the comparison group (271 days from original arrest vs. 360 days from original arrest). It appears as though SCRAM use delayed recidivism for high-risk offenders.

Prevalence:

According to Alcohol Monitoring Systems, 1,600 courts and jurisdictions across the United States are using SCRAM to monitor high-risk offenders. Globally, more than 700,000 individuals have been monitored using this form of technology.

Many evidence-based programs that target high-risk impaired drivers rely on CAM technology to monitor alcohol consumption. As noted, this technology is particularly valuable in monitoring compliance with abstinence orders. Many DWI Courts, intensive supervision programs, and 24/7 Sobriety Programs use CAM in addition to other testing options.

Responsibility.org Position:

Responsibility.org supports the use of continuous alcohol monitoring with repeat DUI offenders. While we recognize that this technology is an effective monitoring tool, we recommend that CAM be utilized in conjunction with assessment and treatment interventions that target individual risk and needs. In the absence of treatment, the underlying causes of offending (such as substance use disorders or mental health issues) are not addressed and recidivism is likely to occur once the use of the technology ceases.

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