

## Excited Delirium Checklist

Excited delirium or excited delirium syndrome is only one form of potential sudden death that law enforcement officers may encounter. Other potential causes of unexpected arrest-related deaths include, but are not limited to: SUDEP<sup>1,2</sup> (sudden unexpected death in epilepsy), sickle cell sudden death,<sup>3</sup> various cardiomyopathies,<sup>4</sup> drug induced arrhythmias (including those caused by alcohol<sup>5,6</sup> and marijuana<sup>7-10</sup>), psychiatric arrhythmias (whether due to schizophrenia<sup>11</sup> or medications<sup>12</sup>), and severe coronary artery disease.

Present?	Criterion
<b>911 Call – Emergency Contact for Assistance</b>	
	1. Critical call phrases include, “He just freaked out,” “just snapped,” “flipped out,” or a person is “running around naked.” <sup>13</sup>
<b>Law Enforcement</b>	
	2. Agitation, screaming, extreme fear response or panic <sup>14-18</sup>
	3. Violence, assault, or aggression towards others <sup>18-21</sup>
	4. Suspicion of impending death. Typical comments include, “I’m dying,” “Please save me,” or “Don’t kill me” <sup>22</sup>
	5. Incoherence or disorganized speech. Grunting or animal sounds <sup>21,23</sup>
	6. Clothing removal inappropriate for ambient temperature or complete nudity. <sup>18,24-26</sup>
	7. Disorientation or hallucinations <sup>18,27-30</sup>
	8. Mania, paranoia, anxiety, or avoidance behavior <sup>14,18,31-34</sup>
	9. Constant motion or hyperactivity <sup>14,30,35-37</sup>
<b>Capture, Control and Restraint of Subject</b>	
	10. Extreme or “super human” strength <sup>21,33</sup>
	11. High threshold of or imperviousness to pain <sup>23,26</sup>
	12. Extreme stamina <sup>38,23</sup>
	13. Brief quiet period before collapse likely corresponding with respiratory arrest <sup>14,17,23,39</sup>

## Emergency Medical Services Contact and Intervention

14. Presenting rhythm of PEA (pulseless electrical activity) or asystole.<sup>38,40-42</sup>  
Also documented by “No shock advised” with automatic external defibrillator<sup>42</sup>

## Emergency Department

15. High core body temperature.<sup>15,16,21,31,43,44</sup>

16. Acidosis (acidic blood)<sup>23,45,46</sup>

17. Rhabdomyolysis (if suspect is resuscitated).<sup>15,44,47</sup>

## Law Enforcement/Forensic Investigator Death Investigation

18. History of chronic stimulant abuse or mental illness<sup>14,19,27,32,37,40,48-51</sup>  
History of violence or drug related arrests, mental health histories and treatments, and drug rehabilitation interventions, etc.

19. Damage to shiny objects such as glass, mirrors and lights.<sup>23</sup> Reported behaviors may include attacking a squad car light bar or charging oncoming traffic at night. Occasionally generalized vandalism.

## Pathologist – Medical Examiner Investigation

20. Minor injuries from fighting against restraints (e.g. handcuffs, hobbles).

21. Positive Mash (central nervous system biomarkers) test for dopamine transporter assay and heat shock protein.<sup>15,31,32,52-56</sup>

22. Positive brain and hair toxicology screen for chronic stimulant abuse.<sup>52,57-</sup>  
<sup>61</sup> Post-incident drug levels may be low to negative.

Contributors: Mark Kroll, PhD; Charles Wetli, MD; Deborah Mash, PhD; Steven Karch, MD; Michael Graham, MD, Jeffrey Ho, MD.

## Notes:

A syndrome is an aggregate of signs and symptoms that define a medical condition. Not all persons with a certain syndrome have all the same signs and symptoms. Not all cases of a syndrome result from the same cause. For example, some persons with carpal tunnel syndrome will have numbness and tingling, while others will have weakness and pain. Also, some persons with carpal tunnel syndrome will have it because of trauma, while others will have the syndrome because of pregnancy, diabetes, rheumatoid arthritis or thyroid disease.

Persons with the excited delirium syndrome will have various combinations of some of the signs and symptoms listed above. The cause (etiology) of the excited delirium syndrome in any individual may be due to one or more of a number of conditions. The most common conditions are mental illness and illegal stimulant abuse (especially cocaine and methamphetamine).<sup>40</sup>

Because the term "excited delirium syndrome" has not been widely used until recent years, many physicians do not recognize the term even though they may be very familiar with agitation and deaths due to drugs and other conditions. It is important to avoid the distraction of the various terms that have been applied to this syndrome. For example, what is now referred to as excited delirium<sup>14-16,26,32,33,36,38-40,44-47,50,53,54,62-69</sup> or agitated delirium<sup>41,56,70-115</sup> has also been called: Bell's mania,<sup>30</sup> acute exhaustive mania,<sup>116</sup> acute delirious mania,<sup>30</sup> delirium grave,<sup>30</sup> typhoma,<sup>30</sup> acute delirium,<sup>30</sup> manic-depressive exhaustion,<sup>24</sup> excited catatonia,<sup>89</sup> lethal catatonia,<sup>117</sup> and neuroleptic malignant syndrome.<sup>19,26,43,72,117</sup>

## Statistical Confidence:

There must be at least 5 positive criteria to diagnose excite delirium syndrome. For 12 or more positive criteria the confidence level is at least 99.9%. For less than 12 positive criteria the confidence depends on the number of criteria for which information is available.

For example, the brain and hair tests are, unfortunately, typically not done. Often the blood tests for rhabdomyolysis is not done. In this case there will only be information on 19 criteria. If 8 of these 19 criteria were positive then the confidence in the diagnosis would be 93%.

		Number of Positive Criteria							
		5	6	7	8	9	10	11	
Number of Criteria With Information ↓	10	64%	82%	93%	98%	99%	99.9%		
	11	62%	81%	91%	97%	99%	99.8%	99.9%	
	12	61%	79%	90%	96%	99%	99.6%	99.9%	
	13	60%	78%	89%	95%	98%	99.4%	99.8%	
	14	60%	78%	89%	95%	98%	99.2%	99.8%	
	15	59%	77%	88%	94%	97%	99%	99.7%	
	16	59%	76%	87%	94%	97%	99%	99.6%	
	17	58%	76%	87%	93%	97%	99%	99.5%	
	18	58%	75%	86%	93%	97%	98%	99%	
	19	57%	75%	86%	93%	96%	98%	99%	
	20	57%	74%	86%	92%	96%	98%	99%	
	21	57%	74%	85%	92%	96%	98%	99%	
	22	57%	74%	85%	92%	96%	94%	99%	

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