

**Additional File 3: AMPDS codes with significantly high rates of patient contact and/or HLIDD**

Code	Description	HEMS taskings 2016-2019					EEAST incidents 2021		
		N	Patient seen rate		HLIDD rate		N	HEMS taskings as % of EEAST incidents	Incidents per 24/h
			%	P-value	%	P-value			
06D02	Breathing problems – Difficulty speaking between breaths	61	73.8%	0.01	-	-	12,584	0.1%	34
<b>07C03</b>	<b>Burns exceeding 18% body area</b>	<b>96</b>	<b>71.9%</b>	<b>0.005</b>	-	-	<b>213</b>	<b>11.3%</b>	<b>0.6</b>
09D01	Respiratory Arrest- Ineffective breathing	942	64.3%	<0.001	67.0%	<0.001	1,750	13.5%	5
<b>09E01</b>	<b>Cardiac / Respiratory Arrest - Not Breathing at all</b>	<b>2940</b>	<b>61.1%</b>	<b>&lt;0.001</b>	<b>70.0%</b>	<b>&lt;0.001</b>	<b>5,374</b>	<b>13.7%</b>	<b>15</b>
09E02	Cardiac / Respiratory Arrest - Breathing Uncertain (Agonal)	842	63.1%	<0.001	63.3%	<0.001	2,122	9.9%	6
10D01	Not alert with Chest Pains	104	66.4%	0.04	-	-	7,415	0.4%	20
10D02	Chest pain/discomfort - Difficulty speaking between breaths	78	92.3%	<0.001	-	-	9,787	0.2%	27
10D04	Clammy with Chest Pains	90	86.7%	<0.001	-	-	16,443	0.1%	45
11E01F	Choking - Complete obstruction/Ineffective breathing	83	66.3%	<0.001	-	-	237	8.8%	0.6
<b>12D01</b>	<b>Fitting and not breathing</b>	<b>91</b>	<b>83.5%</b>	<b>&lt;0.001</b>	<b>89.5%</b>	<b>&lt;0.001</b>	<b>117</b>	<b>19.4%</b>	<b>0.3</b>
12D02E	Convulsions / Fitting - CONTINUOUS or MULTIPLE fitting - Epileptic or Previous diagnosis of fitting	275	65.1%	0.013	-	-	5,552	1.2%	15
17A01G	Fallen - Marked (*) NOT DANGEROUS PROXIMAL or DISTAL body area with deformity still on ground	76	84.2%	<0.001	85.9%	<0.001	1,260	1.5%	4
17A02G	Fallen - Not Dangerous Proximal Injuries still on ground	55	80.0%	0.001	-	-	8,154	0.2%	22
17B00G	Falls - Override - On the ground or floor	66	81.8%	<0.001	75.9%	0.006	n/a (a)		
17B01G	Fall - possibly dangerous area injuries - still on ground	97	76.3%	0.003	-	-	14,253	0.2%	39
17D02	Falls - Arrest	227	-	-	67.8%	0.01	487	11.7%	1
<b>17D02P</b>	<b>Falls - Arrest - Public place (street, parking garage, market)</b>	<b>50</b>	<b>74.0%</b>	<b>0.021</b>	-	-	<b>63</b>	<b>19.8%</b>	<b>0.2</b>

17D03	Unconscious post fall	282	64.5%	0.019	-	-	745	9.5%	2
17D03G	Falls - Unconscious - On the ground or floor	77	72.7%	0.008	-	-	n/a (a)		
17D04E	Falls - Not alert - Environmental problems (rain, heat, cold)	73	78.1%	<0.001	-	-	1,313	1.4%	4
17D04G	Falls - Not alert - On the ground or floor	283	70.7%	<0.001	-	-	15,090	0.5%	41
17D04P	Falls - Not alert - Public place (street, parking garage, market)	184	73.9%	<0.001	-	-	3,156	1.5%	9
<b>17D06</b>	<b>Long fall</b>	<b>75</b>	<b>73.3%</b>	<b>0.007</b>	-	-	<b>168</b>	<b>11.2%</b>	<b>0.5</b>
<b>17D06P</b>	<b>Long fall - Public place (street, parking garage, market)</b>	<b>61</b>	<b>73.8%</b>	<b>0.012</b>	-	-	<b>58</b>	<b>26.3%</b>	<b>0.2</b>
29B01	Injuries	137	70.8%	0.002	-	-	773	4.4%	2
29D02l	Traffic / Transportation Incidents - HIGH MECHANISM (k through t) - Vehicle Vs Bicycle/ Vehicle Vs Motorcycle	517	72.0%	<0.001	72.3%	<0.001	1,462	8.8%	4
29D02m	Traffic / Transportation Incidents - HIGH MECHANISM (k through t) - Vehicle Vs Pedestrian	554	60.7%	<0.001	-	-	1,059	13.1%	3
29D02n	Traffic / Transportation Incidents - HIGH MECHANISM (k through t) - Ejection	112	63.4%	<0.001	-	-	68	41.2%	0.2
29D03V	Traffic / Transportation Incidents - HIGH VELOCITY impact - Multiple patients	131	68.7%	0.011	-	-	519	6.3%	1
29D05	Trapped victim	455	66.37 %	<0.001	65.2%	0.003	258	44.1%	0.7
29D05V	Traffic / Transportation Incidents - Trapped victim - Multiple patients	222	66.37 %	<0.001	-	-	106	52.4%	0.3
<b>29D06</b>	<b>Arrest post RTC</b>	<b>320</b>	<b>64.1%</b>	<b>0.021</b>	<b>75.6%</b>	<b>&lt;0.001</b>	<b>176</b>	<b>45.5%</b>	<b>0.5</b>
<b>29D06V</b>	<b>Traffic / Transportation Incidents - Arrest - Multiple patients</b>	<b>67</b>	<b>71.7%</b>	<b>0.022</b>	<b>77.1%</b>	<b>0.004</b>	<b>28</b>	<b>59.8%</b>	<b>0.1</b>
29D07	Unconscious post RTC	406	65.2%		65.1%	0.009	188	54.0%	0.5
<b>29D07V</b>	<b>Traffic / Transportation Incidents - Unconscious - Multiple patients</b>	<b>119</b>	<b>76.5%</b>	<b>&lt;0.001</b>	<b>80.2%</b>	<b>&lt;0.001</b>	<b>28</b>	<b>106% (b)</b>	<b>0.1</b>
29D08	Not alert with noisy breathing (abnormal)	243	63.5%	<0.001	-	-	204	29.8%	0.6
29D08V	Traffic / Transportation Incidents - Not alert with noisy breathing (abnormal) - Multiple patients	93	69.9%	0.018	-	-	31	75.0%	0.1

30A01	Marked (*) NOT DANGEROUS PROXIMAL or DISTAL body area with deformity	142	78.9%	<0.001	76.8%	<0.001	1,369	2.6%	4
30B01	POSSIBLY DANGEROUS body area	187	78.1%	<0.001	-	-	3,499	1.3%	10
30B02	SERIOUS haemorrhage	80	63.8%	<0.001	-	-	1,167	1.7%	3
30D03	Not alert with traumatic injuries	330	72.4%	<0.001	-	-	5,370	1.5%	15
31D01	Unconscious – AGONAL/INEFFECTIVE BREATHING	147	66.0%	0.041	76.3%	<0.001	609	6.0%	2
35D03A	HCP and AED on scene (immediate life threat)	170	77.7%	<0.001	-	-	n/a (a)		

Nine 'golden codes' highlighted **bold**

Notes: (a) Code not present in 2021 EEAST data. (b) These are estimated percentages using data from different time periods, so >100% can occur. Also, the count of HEMS taskings can exceed EEAST incidents if more than one HEMS crew is tasked to the same incident.