

EMD Coding vs Primary Impression

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Introduction

In emergency dispatching, providers often arrive and find a situation completely different from the EMD Coding. Guilford County Emergency Services recently added BLS units to our fleet and wanted to match determinant codes to the correct responses to allow the ALS level providers to be available for higher priority calls. We looked at the on-scene primary impression recorded by the provider as well as the level of service.

Often, we were seeing Priority Level-Charlie and above calls that could be BLS appropriate and wanted to do an internal research to see exactly which calls we could set a default response to for the different level of provider service.

Objectives

The purpose of this internal research was to determine if the EMD Coding matched the primary impression the provider recorded when they arrived on scene and the level of service (LOS) provided.

Materials and Methods

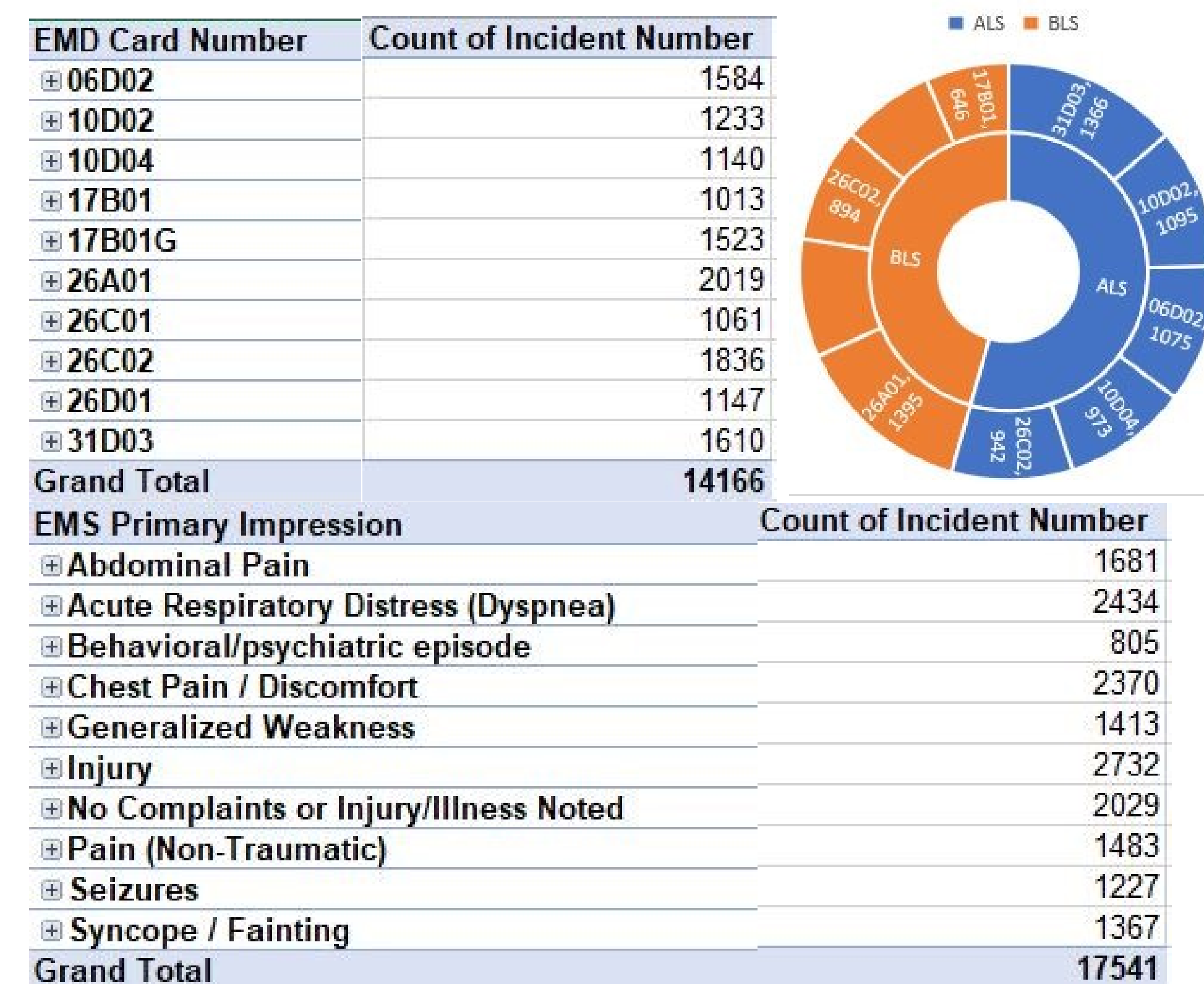
The retrospective, descriptive study analyzed dispatch and emergency medical service (EMS) extracted data from our communications centers and our patient care reporting software:

- Guilford Metro 911, (GM911) North Carolina.
- Guilford County Emergency Services (GCES), North Carolina

We compiled and analyzed data from ESO Patient Care Reporting Software, IAED Data Center (Fusion), First Watch's Academy Analytics, GM911 QA Division and Priority Dispatch ProQA Reports.

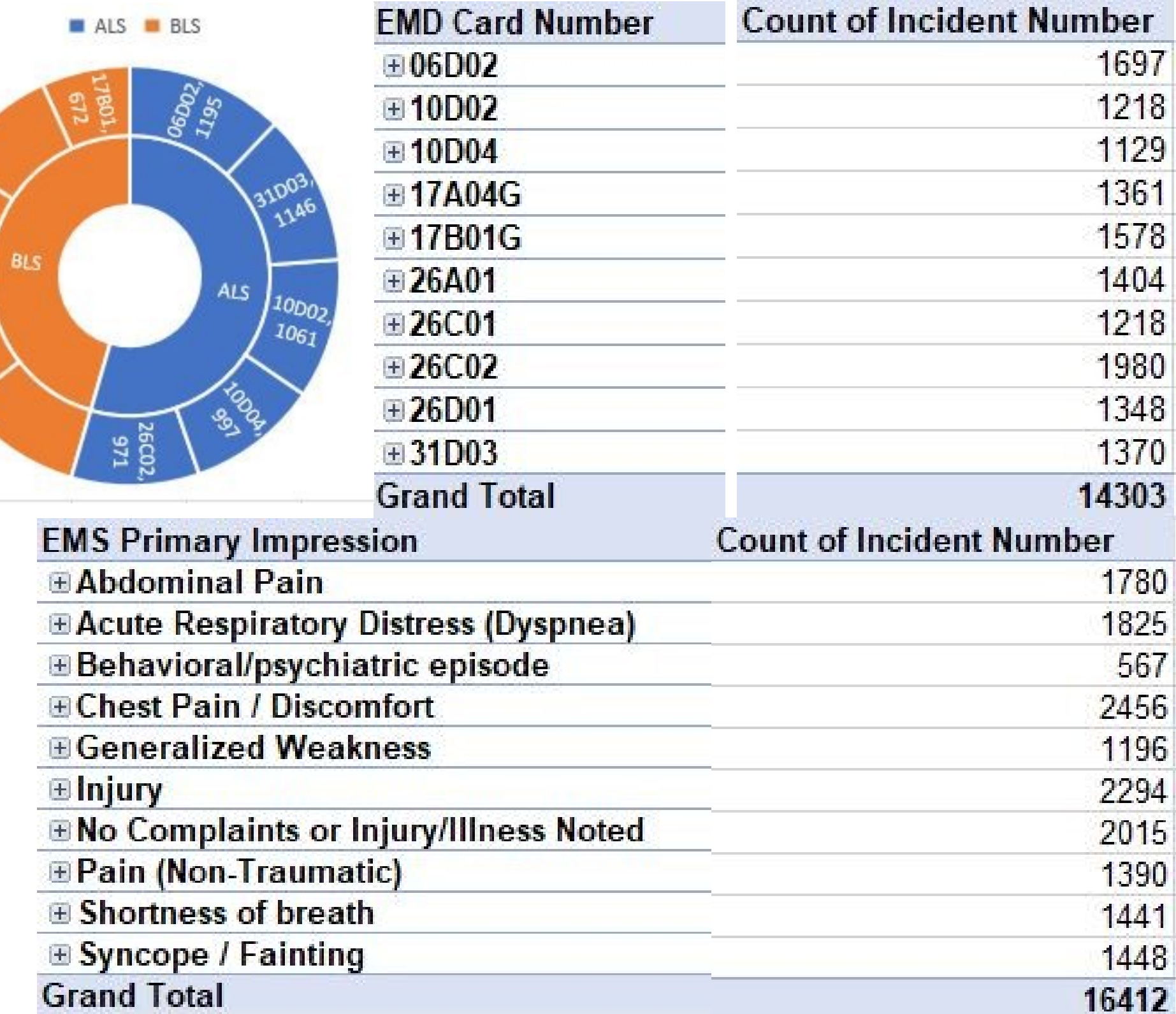
Top 10 MPDS Codes and Primary Impression

Figure 1.2018 Top 10 MPDS Codes and Primary Impressions



Levels of Service

Figure 2. 2019 Top 10 MPDS Codes and Primary Impressions



Discussion

The findings in this study address the following questions

- Can full determinant code information can allow appropriate resources to be sent to the right calls?
- Why do some higher-level calls not need an ALS level response, but rather just a rapid response?
- How does a tiered response fall into this and what benefit does a tiered response have on some of these types of calls?
- What constitutes an ALS level call?
- Is it important to make sure calls are coded properly and the correct resources sent to these events?
- Is level of service a good predictor or do we need to dig down deeper into each primary impression to determine the correct response needed on these?
- Would future studies looking at interventions vs. primary impressions be beneficial?

Results

Figure 3. 2018 MPDS Code vs LOS vs Primary Impression – Top 5

06D02	Advanced Life Support	Acute Respiratory Distress (Dyspnea)	453
		Behavioral/psychiatric episode	56
		Chest Pain / Discomfort	43
		Generalized Weakness	61
		Shortness of breath	75
	Advanced Life Support Total		701
	Basic Life Support	Acute Respiratory Distress (Dyspnea)	84
		Anxiety reaction/Emotional upset	41
		Behavioral/psychiatric episode	39
		No Complaints or Injury/Illness Noted	46
		Pain (Non-Traumatic)	35
	Basic Life Support Total		285
06D02 Total			986
10D02	Advanced Life Support	Abdominal Pain	62
		Acute Respiratory Distress (Dyspnea)	34
		Behavioral/psychiatric episode	41
		Chest Pain / Discomfort	533
		Chest Pain, Other (Non-Cardiac)	103
	Advanced Life Support Total		833
	Basic Life Support	Abdominal Pain	20
		Back Pain	11
		Behavioral/psychiatric episode	26
		Chest Pain, Other (Non-Cardiac)	18
		Pain (Non-Traumatic)	15
	Basic Life Support Total		90
10D02 Total			923
10D04	Advanced Life Support	Abdominal Pain	55
		Behavioral/psychiatric episode	41
		Cardiac arrhythmia/dysrhythmia	23
		Chest Pain / Discomfort	519
		Chest Pain, Other (Non-Cardiac)	109
	Advanced Life Support Total		753
	Basic Life Support	Abdominal Pain	28
		Anxiety reaction/Emotional upset	10
		Behavioral/psychiatric episode	25
		Common Cold	10
		Pain (Non-Traumatic)	23
	Basic Life Support Total		96
10D04 Total			849
17A02G	Advanced Life Support	Injury	176
		Injury of Hip	35
		Injury of Lower Leg	19
		Injury of Pelvis	23
		No Complaints or Injury/Illness Noted	23
	Advanced Life Support Total		287
	Basic Life Support	Generalized Weakness	23
		Injury	203
		Injury of Hip	18
		No Complaints or Injury/Illness Noted	219
		Pain (Non-Traumatic)	26
	Basic Life Support Total		489
17A02G Total			776
17A04G	Advanced Life Support	Altered Mental Status	5
		Generalized Weakness	43
		Injury	16
		No Complaints or Injury/Illness Noted	111
		Syncopal / Fainting	6
	Advanced Life Support Total		181
	Basic Life Support	Back Pain	8
		Generalized Weakness	41
		Injury	23
		No Complaints or Injury/Illness Noted	583
		Pain (Non-Traumatic)	9
	Basic Life Support Total		673

Figure 4. 2019 MPDS Code vs LOS vs Primary Impression – Top 5

06D02	Advanced Life Support	Abdominal Pain	46
		Acute Respiratory Distress (Dyspnea)	340
		Chest Pain / Discomfort	60
		Generalized Weakness	45
		Shortness of breath	311
	Advanced Life Support Total		802
	Basic Life Support	Abdominal Pain	40
		Acute Respiratory Distress (Dyspnea)	40
		Anxiety reaction/Emotional upset	70
		Behavioral/psychiatric episode	64
		Shortness of breath	53
	Basic Life Support Total		267
06D02 Total			1069
10D02	Advanced Life Support	Abdominal Pain	45
		Acute Respiratory Distress (Dyspnea)	66
		Chest Pain / Discomfort	547
		Chest Pain, Other (Non-Cardiac)	102
		Shortness of breath	40
	Advanced Life Support Total		800
	Basic Life Support	Abdominal Pain	17
		Anxiety reaction/Emotional upset	19
		Behavioral/psychiatric episode	19
		Chest Pain, Other (Non-Cardiac)	16
		Pain (Non-Traumatic)	18
	Basic Life Support Total		89
10D02 Total			889
10D04	Advanced Life Support	Abdominal Pain	53
		Behavioral/psychiatric episode	33
		Chest Pain / Discomfort	530
		Chest Pain, Other (Non-Cardiac)	104
		Pain (Non-Traumatic)	40
	Advanced Life Support Total		760
	Basic Life Support	Abdominal Pain	21
		Anxiety reaction/Emotional upset	15
		Behavioral/psychiatric episode	17
		Chest Pain, Other (Non-Cardiac)	11
		Pain (Non-Traumatic)	15
	Basic Life Support Total		79
10D04 Total			839
17A04G	Advanced Life Support	Dizziness	6
		Generalized Weakness	43
		Injury	12
		No Complaints or Injury/Illness Noted	66
		Syncopal / Fainting	5
	Advanced Life Support Total		132
	Basic Life Support	Back Pain	9
		Generalized Weakness	34
		Injury	48
		No Complaints or Injury/Illness Noted	728
		Pain (Non-Traumatic)	14
	Basic Life Support Total		833
17A04G Total			965
17B01G	Advanced Life Support	Injury	194
		Injury of Head	111
		Injury of Hip	28
		No Complaints or Injury/Illness Noted	25
		Syncopal / Fainting	29
	Advanced Life Support Total		387
	Basic Life Support	Back Pain	44
		Injury	244
		Injury of Head	213
		Laceration/Abrasion/Hematoma (minor surface trauma)	41
		No Complaints or Injury/Illness Noted	181
	Basic Life Support Total		823

Conclusion

The study findings showed that not only were we able to pin point certain determinant codes for an ALS level or BLS level response but, also were able to identify the Primary Impressions associated with each final dispatch coding.

In the most frequently used MPDS codes, ALS care is significantly higher in the DELTA determinant level than in both the BRAVO and ALPHA determinant levels. Some of the ALS care in the ALPHA levels may be due to pain relief rather than life-threatening conditions.

This study also found other issues that needed to be addressed, such as incorrect coding of some calls and the need for more quality improvement and education for the telecommunicators on Chief Complaint selection.

Acknowledgements

- Guilford County Emergency Services
- Guilford Metro 911

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