***SUPPLEMENTAL DIGITAL CONTENT 3 (SDC3)***

**SUPPLEMENTAL TABLES**

**Supplemental Table 1: BASELINE CLINICAL FEATURES**

***Supplemental Table 1A: GASTROPARESIS AND LOWER GASTROINTESTINAL SYMPTOMS AT BASELINE***

|  |  |  |  |
| --- | --- | --- | --- |
| **Symptom Category** | **Individual Symptom** | **Subjects Reporting Individual Symptoms** | |
| **Fraction** | **%** |
| Gastroparesis symptoms | Nausea | 132/150 | 88.0% |
| Retching | 64/150 | 42.7% |
| Vomiting | 62/150 | 41.3% |
| Stomach fullness | 142/150 | 94.7% |
| Not able to finish meal | 135/150 | 90.0% |
| Feeling excessively full after meal | 145/150 | 96.7% |
| Loss of appetite | 134/150 | 89.3% |
| Bloating | 139/150 | 92.7% |
| Stomach visibly larger | 138/150 | 92.0% |
| Upper abdominal pain | 130/150 | 86.7% |
| Upper abdominal discomfort | 135/150 | 90.0% |
| Lower gastrointestinal symptoms | Lower abdominal pain | 109/150 | 72.7% |
| Lower abdominal discomfort | 114/150 | 76.0% |
| Constipation | 117/150 | 78.0% |
| Diarrhea | 90/150 | 60.0% |

***Supplemental Table 1B: ABNORMAL TRANSIT BY GES AND WMC AT BASELINE***

|  |  |  |  |
| --- | --- | --- | --- |
| **Transit Category** | **Individual Transit Abnormality** | **Subjects With Abnormal Transit** | |
| **Fraction** | **%** |
| Gastric emptying abnormalities | Delayed GES† | 36/149 | 24.2% |
| Delayed WMC GET‡ | 53/149 | 35.6% |
| Rapid GES | 21/149 | 14.1% |
| Rapid WMC GET | 5/149 | 3.4% |
| Small intestinal transit abnormalities | Delayed WMC SBTT§ | 33/146 | 22.6% |
| Rapid WMC SBTT | 3/146 | 2.1% |
| Colon transit abnormalities | Delayed WMC CTT¶ | 45/146 | 30.8% |
| Isolated transit abnormalities | Any isolated WMC delay | 53/145 | 36.6% |
| Isolated WMC GET delay | 22/145 | 15.2% |
| Isolated WMC SBTT delay | 11/145 | 7.6% |
| Isolated WMC CTT delay | 20/145 | 13.8% |
| Generalized transit abnormalities | WMC delay in 2 or more regions | 32/146 | 21.9% |

† GES—gastric emptying scintigraphy

‡ WMC GET—wireless motility capsule gastric emptying time

§ WMC SBTT—wireless motility capsule small bowel transit time

¶ WMC CTT—wireless motility capsule colon transit time

**Supplemental Table 2: IMPACT OF GES AND WMC TESTING ON SPECIFIC MANAGEMENT DECISIONS IN RELATION TO GASTRIC EMPTYING DELAYS**

***Supplemental Table 2A: SPECIFIC MEDICATION CHANGES IN RELATION TO GASTRIC EMPTYING DELAYS***

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Medication Class** | **Specific Medication** | **Delayed GES†** | **Normal GES** | **P Value Delayed vs. Normal GES** | **Delayed GET‡** | **Normal GET** | **P Value Delayed vs. Normal GET** | **P Value Delayed GES vs. Delayed GET** | **P Value Normal GES vs. Normal GET** |
| Prokinetics | Metoclopramide | 7/34 (20.6%) | 4/14 (28.6%) | 0.62 | 11/50 (22.0%) | 4/26 (15.4%) | 0.70 | 0.57 | 0.51 |
| Domperidone | 18/34 (52.9%) | 5/14 (35.7%) | 20/50 (40.0%) | 11/26 (42.3%) |
| Macrolides§ | 7/34 (20.6%) | 5/14 (35.7%) | 12/50 (24.0%) | 7/26 (26.9%) |
| Pyridostigmine | 1/34 (2.9%) | 0/14 (0%) | 6/50 (12.0%) | 2/26 (7.7%) |
| Other¶ | 1/34 (2.9%) | 0/14 (0%) | 1/50 (2.0%) | 2/26 (7.7%) |
| Neuromodulators | Mirtazapine | 1/7 (14.3%) | 24/67 (35.8%) | 0.51 | 5/16 (31.2%) | 19/57 (33.3%) | 0.60 | 0.86 | 0.96 |
| Tricyclics¥ | 1/7 (14.3%) | 17/67 (25.4%) | 2/16 (12.5%) | 15/57 (26.3%) |
| Neuropathic pain modulatorsɸ | 2/7 (28.6%) | 14/67 (20.9%) | 5/16 (31.2%) | 10/57 (17.5%) |
| Buspirone | 1/7 (14.3%) | 4/67 (6.0%) | 2/16 (12.5%) | 4/57 (7.0%) |
| Other§ | 2/7 (28.6%) | 8/67 (11.9%) | 2/16 (12.5%) | 9/57 (15.8%) |

† GES—gastric emptying scintigraphy

‡ GET—wireless motility capsule gastric emptying time

§ Macrolides includes erythromycin (6-delayed GES, 1-normal GES, 10-delayed GET, 3-normal GET) and azithromycin (1-delayed GES, 4-normal GES, 2-delayed GET, 4-normal GET)

¶ Other (prokinetics) includes pyloric botulinum toxin (1=delayed GES, 1-delayed GET, 1-normal GET) and prucalopride (1-normal GET)

¥ Tricyclics includes nortriptyline (12-normal GES, 11-normal GET), amitriptyline (1-delayed GES, 1-normal GES, 2-delayed GET, 1-normal GET), desipramine (2-normal GES, 3-normal GET), doxepin (1-normal GES), undefined tricyclic (1-normal GES)

ɸ Neuropathic pain modulators includes gabapentin (2-delayed GES, 13-normal GES, 5-delayed GET, 8-normal GET) and pregabalin (1-normal GES, 2-normal GET)

§ Other (neuromodulators) includes olanzapine (1-normal GES, 1-normal GET), duloxetine (2-normal GES, 1-delayed GET, 2-delayed GET), citalopram (1-normal GES), sertraline (1-normal GES, 2-normal GES), escitalopram (1-normal GES, 2-normal GET), clonazepam (1-delayed GES), lorazepam (1-delayed GES, 1 delayed GET), undefined (2-normal GES, 2-normal GET)

***Supplemental Table 2B: SPECIFIC ADDITIONAL MOTILITY TEST RECOMMENDATIONS IN RELATION TO GASTRIC EMPTYING DELAYS***

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Specific Motility Test** | **Delayed GES†** | **Normal GES** | **P Value Delayed vs. Normal GES** | **Delayed GET‡** | **Normal GET** | **P Value Delayed vs. Normal GET** | **P Value Delayed GES vs. Delayed GET** | **P Value Normal GES vs. Normal GET** |
| Radioopaque markers to measure colon transit | 13/23 (56.5%) | 27/72 (37.5%) | 0.35 | 5/20 (25.0%) | 3/37 (8.1%) | 0.26 | 0.02 | 0.001 |
| Anorectal manometry to test for dyssynergia | 8/23 (34.8%) | 31/72 (43.1%) | 14/20 (70.0%) | 28/37 (75.7%) |
| Antroduodenal manometry to define upper gut neuropathy or myopathy | 2/23 (8.7%) | 11/72 (15.3%) | 0/20 (0%) | 3/37 (8.1%) |
| Other§ | 0/23 (0%) | 3/72 (4.2%) | 1/20 (5.0%) | 3/37 (8.1%) |

† GES—gastric emptying scintigraphy

‡ GET—wireless motility capsule gastric emptying time

§ Other includes defecography (1-delayed GET), esophageal manometry (1-normal GES, 2-normal GET), gastric barostat (2-normal GES, 1-normal GET)

**Supplemental Table 3: IMPACT OF GES AND WMC TESTING ON SPECIFIC MANAGEMENT DECISIONS IN RELATION TO COLON TRANSIT DELAYS**

***Supplemental Table 3A: SPECIFIC LAXATIVE CHANGES IN RELATION TO COLON TRANSIT DELAYS***

|  |  |  |  |
| --- | --- | --- | --- |
| **Specific Laxative** | **Delayed CTT†**  **N (%)** | **Normal CTT**  **N (%)** | **P Value**  **Delayed vs. Normal CTT** |
| Polyethylene Glycol 3350 | 13/36 (36.1%) | 8/22 (36.4%) | 0.30 |
| Linaclotide | 12/36 (33.3%) | 10/22 (45.5%) |
| Lubiprostone | 8/36 (22.2%) | 1/22 (4.5%) |
| Other‡ | 3/36 (8.3%) | 3/22 (13.6%) |

† CTT—colon transit time

‡ Other includes misoprostol (1-delayed CTT), bisacodyl (1-delayed CTT, 1 normal CTT), magnesium citrate (1-delayed CTT), undefined (1-delayed CTT, 1-normal CTT)

***Supplemental Table 3B: SPECIFIC ADDITIONAL MOTILITY TEST RECOMMENDATIONS IN RELATION TO COLON TRANSIT DELAYS***

|  |  |  |  |
| --- | --- | --- | --- |
| **Specific Motility Test** | **Delayed CTT†**  **N (%)** | **Normal CTT**  **N (%)** | **P Value**  **Delayed vs. Normal CTT** |
| Radioopaque markers | 5/23 (21.7%) | 4/36 (11.1%) | 0.34 |
| Anorectal manometry | 17/23 (73.9%) | 26/36 (72.2%) |
| Antroduodenal manometry | 1/23 (4.3%) | 2/36 (5.6%) |
| Other‡ | 0/23 (0%) | 4/36 (11.1%) |

† CTT—colon transit time

‡ Other includes defecography (1-normal CTT), esophageal manometry (2-normal CTT), gastric barostat (1-normal CTT)

**Supplemental Table 4: IMPACT OF GES AND WMC TESTING ON MANAGEMENT CHANGES IN RELATION TO RAPID TRANSIT**

***Supplemental Table 4A: TREATMENT CHANGES IN RELATION TO RAPID TRANSIT***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Gastric Emptying Comparison** | **New Treatment Recommended** | **Recommended for Change in Treatment** | | |
| **Percent of Subjects** | **P Value** | **Test with Greater Impact on Management** |
| Rapid GES† (n=21) vs. normal GES (n=92) | Prokinetic change | 9.5% vs. 15.2% | 0.73 | Same |
| Antiemetic change | 0% vs. 16.3% | 0.07 | Same |
| Neuromodulator change | 52.4% vs. 68.5% | 0.20 | Same |
| Laxative change | 19.0% vs. 14.1% | 0.52 | Same |
| Transit retardant change | 0% vs. 1.1% | 1.00 | Same |
| Antidumping diet change | 9.5% vs. 1.1% | 0.09 | Same |
| Rapid GET‡ (n=5) vs. normal GET (n=91) | Prokinetic change | 0% vs. 26.4% | 0.33 | Same |
| Antiemetic change | 0% vs. 11.0% | 1.00 | Same |
| Neuromodulator change | 60.0% vs. 58.2% | 1.00 | Same |
| Laxative change | 20.0% vs. 37.4% | 0.65 | Same |
| Transit retardant change | 40.0% vs. 4.4% | 0.03 | Rapid>normal GET |
| Antidumping diet change | 40.0% vs. 2.2% | 0.01 | Rapid>normal GET |
| Rapid SBTT§ (n=3) vs. normal SBTT (n=110) | Prokinetic change | 100% vs. 33.6% | 0.04 | Rapid>normal SBTT |
| Antiemetic change | 0% vs. 13.6% | 1.00 | Same |
| Neuromodulator change | 0% vs. 50.9% | 0.24 | Same |
| Laxative change | 33.3% vs. 36.3% | 1.00 | Same |
| Transit retardant change | 0% vs. 4.5% | 1.00 | Same |
| Antidumping diet | 0% vs. 2.7% | 1.00 | Same |

† GES—gastric emptying scintigraphy

‡ GET—wireless motility capsule gastric emptying time

§ SBTT—wireless motility capsule small bowel transit time

***Supplemental Table 4B: ADDITIONAL DIAGNOSTIC TEST RECOMMENDATIONS IN RELATION TO RAPID TRANSIT***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Gastric Emptying Comparison** | **Additional Test Recommended** | **Recommended for Additional Diagnostic Testing** | | |
| **Percent of Subjects** | **P Value** | **Test with Greater Impact on Management** |
| Rapid GES† (n=21) vs. normal GES (n=92) | Endoscopy/imaging tests | 23.8% vs. 18.5% | 0.55 | Same |
| Any motility tests | 38.1% vs. 41.3% | 1.00 | Same |
| Multiple (>2) motility tests | 19.0% vs. 23.9% | 0.78 | Same |
| Other tests | 38.1% vs. 29.3% | 0.44 | Same |
| Rapid GET‡ (n=5) vs. normal GET (n=91) | Endoscopy/imaging tests | 0% vs. 11.0% | 1.00 | Same |
| Any motility tests | 20.0% vs. 33.0% | 1.00 | Same |
| Multiple (>2) motility tests | 0% vs. 5.5% | 1.00 | Same |
| Other tests | 20.0% vs. 29.7% | 1.00 | Same |
| Rapid SBTT§ (n=3) vs. normal SBTT (n=110) | Endoscopy/imaging tests | 0% vs. 9.1% | 1.00 | Same |
| Any motility tests | 66.7% vs. 27.3% | 0.19 | Same |
| Multiple (>2) motility tests | 0% vs. 3.6% | 1.00 | Same |
| Other tests | 66.7% vs. 25.5% | 0.17 | Same |

† GES—gastric emptying scintigraphy

‡ GET—wireless motility capsule gastric emptying time

§ SBTT—wireless motility capsule small bowel transit time