**Table 1: Demographic and Respiratory Characteristics**

|  |  |  |
| --- | --- | --- |
| **Characteristic** |  |  |
| **Demographic and perinatal characteristics** |  |  |
| Birth weight (g)…mean (SD)  Median birth weight (g) | 1203(807)  840 |  |
| Gestational age (wk)…mean (SD)  Median gestational age (wk)  Corrected gest. age (wk) at vaccinationmean (SD)  Median corrected gestational age (wk) at vaccination | 28 (4.89)  26  41 (7.8)  40 |  |
| Multiple gestation (%) | 10 |  |
| Race/ethnicity (%) |  |  |
| Non-Hispanic black | 33 |  |
| Non-Hispanic white | 23 |  |
| Hispanic | 26 |  |
| Asian | 4.5 |  |
| Other | 14 |  |
| Male | 52 |  |
| **Respiratory characteristics at time of vaccination (%)** |  |  |
| Intubated | 21.4 |  |
| CPAP | 17 |  |
| High-flow nasal cannula | 8.6 |  |
| Nasal Cannula | 13 |  |
| Room Air | 40 |  |
| *g: grams; SD: standard deviation; wk: weeks; CPAP: Continuous positive airway pressure* | | |

**Table 2: Reasons documented for vaccination delay**

|  |  |
| --- | --- |
| **Item** | **N (%)** |
| No documentation | 48 (59.26) |
| Awaiting signed consent | 10 (12.35) |
| Medically unstable | 17 (20.99) |
| Vaccination not available (shortage) | 2 (2.47) |
| Parental request to delay | 1 (1.24) |
| Delayed to stay on track with sibling | 3 (3.7) |
| **Total** | **81** |

**Table 3: Adverse events following vaccination (Total study n=337)**

|  |  |
| --- | --- |
| **Item** | **N (%)** |
| Infants with change in respiratory support\*  Recent wean in support  Recent worsening status  Overnight ventilator mucus plug (resolved after treatment)  Visiting parent with URI  Infants with change in respiratory support without confounding factors\* | 32 (9.94)  17 (53.13)  8 (25)  1 (3.12)  1 (3.21)  5 (1.48) |
| Infants with increased A/Bs\*  Recent wean in support  Increasing A/Bs prior to immunization  Visiting parent with URI  Infants with increased A/Bs without confounding factors\* | 28 (8.31)  12 (42.86)  8 (28.57)  1 (3.57)  7 (2.08) |
| Infants with axillary temperature >99.9F\*  Infants undergoing sepsis evaluation | 7 (20.8)  *1 (14.29)* |
| Infants undergoing sepsis evaluation\*  Infants with proven sepsis\* | 4 (1.19)  0 (0) |
| Infants with feeding intolerance\*  *Infants with poor nippling*  *Infants with increased residuals* | 4 (1.19)  *2 (50)*  *2 (50)* |

*URI: upper respiratory infection; A/Bs: Apnea/Bradycardia*

*\*= as compared to total vaccination events for study (n=337)*

**Table 4: Reported barriers to vaccination**

|  |  |
| --- | --- |
| **Barriers** | **%** |
| Unable to get consent | 39.1% |
| Infant too sick at the time they are due | 25.0% |
| No reminder system | 10.9% |
| Want to wait so baby will not get sick | 7.8% |
| Following a delayed schedule per another provider’s plan | 6.3% |
| Other   * Parental hesitancy * Nurse forgot to consent * Infant previously critical, if infant deteriorate may be from vaccine * Live vaccines have to wait for discharge | 6.3% |
| Forgetting to order | 4.7% |

**Table 5: Vaccine knowledge assessment (n=26)**

|  |  |
| --- | --- |
| **Questions with answers** | **% correct** |
| For a newborn weighing 2kg or more, the hepatitis B vaccine is recommended: within 24 hours of birth | 84% |
| For a newborn weighing less than 2 kg, the hepatitis B vaccine is recommended: at one month of life | 80.8% |
| The earliest the Dtap, Hib, PCV, or IPV vaccines can be given is: at 6 weeks | 11.5% |
| Which vaccines are recommended at 2 months: Dtap-PCV-Hib-IPV | 92.3% |
| If an infant received vaccines late, what is the minimum interval between dose 1 and dose 2 for Dtap: 4 weeks | 64.0% |

*kg: kilograms; Dtap: Diphtheria-Tetanus-Pertussis; Hib: Haemophilus influenzae type b; PCV: Pneumococcal vaccine; IPV: Inactivated Polio Vaccine*

**Table 6: Provider score on vaccine knowledge assessment**

|  |  |  |
| --- | --- | --- |
| **Provider Role** | **Average Score** | **Percentage** |
| -Attending  -Fellow  -Neonatal Nurse Practitioner  -Neonatal Nurse  -Discharge Planner | 3.57/5  4.67/5  3.89/5  1.85/5  1.87/5 | 71.4  93.3  77.8  37.0  37.5 |