**JPED-D-21-00186 – Supplementary material**

# **Supplementary Table 1 - Clinical characteristics of critically ill children. Values expressed as frequency (n = 92), percentages, mean and standard deviation.**

|  |  |  |
| --- | --- | --- |
| **Age group** | **Frequency** | **Percentage** |
| <1 year | 39 | 42.4 |
| 1-4 years | 26 | 28.3 |
| 5-10 years | 19 | 20.8 |
| 10- 12 years | 8 | 8.7 |
| **Sex**, Males | 51 | 55.4 |
| **BMI status** |  |  |
| Normal | 50 | 54.3 |
| Underweight | 39 | 42.2 |
| Overweight | 3 | 3.3 |
| **Presenting signs and symptoms** |  |  |
| Fever | 66 | 71.7 |
| Respiratory distress | 67 | 72.8 |
| Shock | 34 | 37 |
| Convulsion | 22 | 23.9 |
| Altered sensorium | 7 | 7.7 |
| Pain abdomen | 7 | 7.6 |
| Diarrhea, vomiting | 16 | 17.4 |
| Oliguria | 9 | 9.8 |
| Rash, conjunctivitis, oral mucosal changes | 16 | 17.4 |
| Bleeding manifestations | 10 | 10.9 |
| Lymphadenopathy | 6 | 6.5 |
| **Reasons for PICU admission** |  |  |
| Pneumonia | 39 | 42.4 |
| ARDS | 20 | 21.7 |
| Refractory convulsion | 22 | 23.9 |
| Raised intracranial tension | 9 | 9.8 |
| Shock | 34 | 37 |
| Myocarditis | 20 | 21.7 |
| Acute Kidney Injury | 6 | 6.5 |
| Decompensated Liver disease | 1 | 1.1 |
| Tumor Lysis syndrome | 8 | 8.7 |
| Steven Johnsons syndrome | 1 | 1.1 |
| Disseminated Intravascular coagulation | 15 | 16.3 |
| Superior Vena Cava (SVC) Syndrome | 1 | 1.1 |
| Hemophagocytic Lymphohistiocytosis (HLH) | 5 | 8.7 |
| MIS-C | 20 | 21.7 |
| MIS-C with Shock or MODS | 14 | 15.2 |
| MIS-C with Kawasaki like presentation | 6 | 6.5 |
| **Comorbidity status** |  |  |
| Comorbidity Present | 50 | 54.3 |
| **Pattern of Comorbidities** |  |  |
| Central Nervous system | 20 | 21.7 |
| Cardiovascular | 8 | 8.7 |
| Respiratory | 2 | 2.2 |
| Gastrointestinal | 2 | 2.2 |
| Genitourinary | 5 | 5.5 |
| Rheumatological | 2 | 2.2 |
| Hematological and lymphoreticular | 10 | 10.9 |
| Mucocutaneous | 1 | 1.1 |
| **Coinfections** |  |  |
| Known coinfection present | 23 | 25 |
| Scrub typhus | 5 | 5.4 |
| Dengue shock syndrome | 2 | 2.2 |
| Enteric fever | 1 | 1.1 |
| Staphylococcal sepsis | 8 | 8.7 |
| Acinetobacter sepsis | 3 | 3.3 |
| Enterococcal sepsis | 2 | 2.2 |
| Candida sepsis | 2 | 2.2 |
| **PRISM III scores on Day 1, range** |  |  |
| 0-9 | 22 | 23.9 |
| 10-19 | 46 | 50 |
| 20-29 | 15 | 16.3 |
| 30-39 | 9 | 9.7 |
| **PRISM III scores on Day 1 (Mean, SD)** | 12.44, 8.45 |  |
| **Highest p-SOFA scores range** | **Frequency** | **Percentage** |
| 0-6 | 13 | 14.1 |
| 7-12 | 42 | 45.7 |
| 13-18 | 17 | 18.5 |
| 19-24 | 20 | 21.7 |
| **Highest mean pSOFA score (Mean, SD)** | 12.74, 6.20 |  |

# **Supplementary Table 2 - Laboratory parameters, common radiological and echocardiographic findings in the critically ill children.**

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| --- | --- | --- |
|  | **Median** | **Interquartile Range** |
| Hb levels (gm/dL), n = 92 | 9.2 | 7.4 -10.7 |
| Total leucocyte count (109/L), n = 92 | 13.1 | 8.9– 18.1 |
| Absolute Neutrophil count (109/L), n = 92 | 10.9 | 6.4- 14.9 |
| Absolute Lymphocyte count(109/L), n = 92 | 2.2 | 1.1-4.2 |
| Neutrophil/ Lymphocyte ratio | 5.2 | 3.7- 10.3 |
| Platelet counts(109/L), n = 92 | 145 | 51- 242 |
| CRP (mg/L), n = 83 | 48 | 6.7- 97.0 |
| Procalcitonin (µg/L), n = 26 | 8.5 | 0.8 – 51.0 |
| Ferritin (µg/L), n = 24 | 530.5 | 237.5 - 1048.0 |
| D-dimer, (µg/L), n = 32 | 4.7 | 1.2 - 9.7 |
| IL-6 (pg/ml), n = 22 | 42 | 17.1- 68.4 |
| NT pro-BNP (ng/L), n = 20 | 1366 | 616.8 -2684.3 |
| Creatinine, mmol/L, n = 85 | 0.70 | 0.4-1.5 |
| SGOT (U/L), n = 92 | 55.5 | 31.0 - 84.5 |
| SGPT (U/L), n = 92 | 48 | 25.3 - 72.3 |
| Albumin (gm/L), n = 92 | 2.8 | 2.2- 3.8 |
| PT(s), n = 35 | 17 | 14- 25 |
| aPTT(s), n = 36 | 32.4 | 29.0- 39.8 |
| INR, n =35 | 1.7 | 1.4 - 2 |
| **Chest X Ray findings** | **Frequency** | **Percentage** |
| Pulmonary infiltrates | 41 | 44.6 |
| Diffuse interstitial/ground glass opacities | 21 | 22.8 |
| Lobar consolidation | 15 | 16.3 |
| Perihilar infiltrates | 5 | 5.4 |
| Hyperinflated lung fields | 8 | 8.7 |
| **Lung USG findings** |  |  |
| Abnormal lung USG | 54 | 58.7 |
| B-lines | 50 | 54.9 |
| Non-confluent B-lines | 31 | 34.06 |
| Confluent B-lines | 19 | 20.8 |
| Pleural line abnormalities | 44 | 48.3 |
| Reduced lung sliding | 31 | 34.06 |
| Subpleural micro consolidations | 40 | 43.9 |
| Pleural Effusion | 12 | 13.18 |
| **Echocardiography** |  |  |
| Myocardial dysfunction (EF < 55 %) | 21 | 22.8 |
| Coronary artery dilatation (Z score > 2 SD) | 6 | 6.5 |
| Pericardial effusion | 5 | 5.4 |

CRP – C-reactive protein, Pro-BNP – Pro Brain natriuretic peptide, IL- 6 - Interleukin 6.

Non-confluent B lines - > 3 to ≤ 7 B lines, Confluent B Lines - > 7 B lines.

# **Supplementary Table 3 - Treatment and outcomes of the critically ill children (n = 92).**

|  |  |  |
| --- | --- | --- |
|  | **Frequency** | **Percentage** |
| **Highest respiratory support** |  |  |
| Supplemental oxygen therapy | 31 | 33.7 |
| High flow nasal cannula | 29 | 31.5 |
| Non-invasive ventilation | 6 | 6.5 |
| Invasive ventilation | 26 | 28.3 |
| Invasive Ventilator days (Mean, SD) | 7.8, 6.2 |  |
| Prone positioning | 14 | 15.2 |
| Duration of prone position, Hours (Mean, SD) | 31.6, 10.45 |  |
| ARDS severity in initial 7 days |  |  |
| Mild | 2 | 2.1 |
| Moderate | 10 | 10.8 |
| Severe | 8 | 9.1 |
| Oxygenation Index, Mean, Standard Deviation | 12.5, 6.8 |  |
| **Inotropic/Vasopressor support** |  |  |
| Inotrope/Vasopressor requirement | 34 | 37 |
| Highest Vasoactive Inotropic Score >20 | 27 | 81.8 |
| Highest VIS Score (Mean, Standard Deviation) | 54.7, 29.9 |  |
| **Other supports** |  |  |
| Osmotherapy | 23 | 25 |
| Blood products | 28 | 30.4 |
| Neuromuscular Blocker | 10 | 10.8 |
| Plasmapheresis | 1 | 1.1 |
| Renal Replacement therapy | 2 | 2.2 |
| **Pharmacotherapy** |  |  |
| Steroids | 50 | 54.3 |
| * Acute Covid Pneumonia/ARDS * MIS-C * Other | 23  20  07 | 25  21.73  7.60 |
| IVIg | 24 | 26.1 |
| Remdesivir | 14 | 15.2 |
| Tocilizumab | 3 | 3.3 |
| Low Molecular Weight Heparin | 16 | 17.3 |
| Infliximab | 1 | 1.2 |
| **Outcomes** |  |  |
| Discharged from PICU within 14 days | 61 | 66.3 |
| PICU stay > 14 days | 24 | 26.1 |
| Death | 7 | 7.6 |
| PICU stay in days (Mean, Standard deviation) | 9.8, 7.1 |  |