Appendix 3

Example Calculations of ROX

1. Patient with FIO2 and liters per minute flow both reported in database

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Time  | Breathing Frequency | FiO2 | Oxygen Saturation | Flow Rate |
| Prior to intubation | 20 breaths per minute | 1.0 | 88% | 40 L/min |

ROX = (oxygen saturation/FiO2)/breathing frequency

ROX = (88/1.0)/20 = 4.4

1. Patient with liters per minute flow but no FiO2 reported in databased

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Time  | Breathing Frequency | FiO2 | Oxygen Saturation | Flow Rate |
| Prior to intubation | 20 breaths per minute | missing | 88% | 4 L/min |

FiO2 estimated to be 0.36 based on 4 L/min flow (see appendix 2) [15]

ROX = (oxygen saturation/FiO2)/breathing frequency

ROX = (88/0.36)/20 = 12.2

1. Patient with no liters per minute flow reported in database but FiO2 reported

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Time  | Breathing Frequency | FiO2 | Oxygen Saturation | Flow Rate |
| Prior to intubation | 20 breaths per minute | 0.5 | 88% | missing |

ROX = (oxygen saturation/FiO2)/breathing frequency

ROX = (88/.5)/20 = 8.8