**Supplement**

**TABLE S1:** Standardized chest radiograph interpretation form

|  |  |  |
| --- | --- | --- |
| **Investigator** |  | |
| **Date** |  | |
| **Image number** |  | |
| **Pseudonym** |  | |
|  | **Yes** | **no** |
| **Adaquate film quality** |  |  |
| **WHO-classification** (7) | **Yes** | **no** |
| \* consolidation |  |  |
| \*\* other infiltrate |  |  |
| \*\* pleural effusion |  |  |
| **pedCAPNETZ-item-catalogue fcatacataloguecatalogueKatalog** | **Yes** | **no** |
| Peribronchial thickening |  |  |
| Interstitial pattern |  |  |
| Hyperinflation |  |  |
| Infiltrate |  |  |
| Atelectasis / dystelectasis |  |  |
| Pleural effusion |  |  |
|  | **Yes** | **no** |
| Pneumonia |  |  |
| **radiographic pattern** | **Yes** | **no** |
| Lobar pneumonia |  |  |
| Interstitial pneumonia |  |  |
| Bronchopneumonia |  |  |
| Other pattern |  |  |

\* A dense or fluffy opacity that occupies a portion or whole of a lobe or of the entire lung, that may or may not contain air-bronchograms (7)

\*\* Linear and patchy densities (interstitial infiltrate) in a lacy pattern involving both lungs, featuring peribronchial thickening and multiple areas of atelectasis; it also includes minor patchy infiltrates that are not of sufficient magnitude to constitute consolidation, and small areas of atelectasis which in children may be difficult to distinguish from consolidation (7)

\*\*\* Presence of fluid in the lateral pleural space between the lung and chest wall; in most cases, this will be seen at the costo-phrenic angle or as a layer of fluid adjacent to the lateral chest wall (7)

**TABLE S2:**  Concordance analyzes on the items of the WHO-Classification.Obs. agreement: Inter-observer agreement of pediatric radiologists; PABAK: Prevalence and bias adjusted kappa; Cohens Kappa

**Item:** Consolidation

External pediatric radiologist (1)

|  |  |  |  |
| --- | --- | --- | --- |
|  | No | Yes | Total |
| No | 121 | 46 | 167 |
| Yes | 13 | 52 | 65 |
| Total | 134 | 98 | 232 |

External pediatric radiologist (2)  
 Obs. agreement = 75%, PABAK = 0.49, 0.45

**Item:** Other infiltrate

External pediatric radiologist (1)

|  |  |  |  |
| --- | --- | --- | --- |
|  | No | Yes | Total |
| No | 44 | 72 | 116 |
| Yes | 28 | 87 | 115 |
| Total | 72 | 159 | 231 |

External pediatric radiologist (2)  
 Obs. agreement = 57%, PABAK = 0.13, 0.14

**Item:** Pleural effusion

External pediatric radiologist (1)

|  |  |  |  |
| --- | --- | --- | --- |
|  | No | Yes | Total |
| No | 167 | 23 | 190 |
| Yes | 4 | 34 | 38 |
| Total | 171 | 57 | 228 |

External pediatric radiologist (2)  
 Obs. agreement = 88%, PABAK = 0.76, 0.64

**TABLE S3:**  Concordance analyzes on the items of the pedCAPNETZ-item-catalogue.Obs. agreement: Inter-observer agreement of pediatric radiologists; PABAK: prevalence and bias adjusted kappa; Cohens Kappa

**Item:** Peribronchial thickening

External pediatric radiologist (1)

|  |  |  |  |
| --- | --- | --- | --- |
|  | No | Yes | Total |
| No | 53 | 40 | 93 |
| Yes | 47 | 91 | 138 |
| Total | 100 | 131 | 231 |

External pediatric radiologist (2)  
 Obs. agreement = 62%, PABAK = 0.25, 0.23

**Item:** Interstitial pattern

External pediatric radiologist (1)

|  |  |  |  |
| --- | --- | --- | --- |
|  | No | Yes | Total |
| No | 123 | 19 | 142 |
| Yes | 64 | 26 | 90 |
| Total | 187 | 45 | 232 |

External pediatric radiologist (2)  
 Obs. agreement = 64%, PABAK = 0.28, 0.17

**Item:** Hyperinflation

External pediatric radiologist (1)

|  |  |  |  |
| --- | --- | --- | --- |
|  | No | Yes | Total |
| No | 76 | 32 | 108 |
| Yes | 36 | 88 | 124 |
| Total | 112 | 120 | 232 |

External pediatric radiologist (2)  
 Obs. agreement = 71%, PABAK = 0.41, 0.41

**Item:** Infiltrate

External pediatric radiologist (1)

|  |  |  |  |
| --- | --- | --- | --- |
|  | No | Yes | Total |
| No | 43 | 15 | 58 |
| Yes | 32 | 142 | 174 |
| Total | 75 | 157 | 232 |

External pediatric radiologist (2)  
 obs. agreement = 80%, PABAK = 0.59, 0.51

**Item:**  Atelectasis /dystelectasis

External pediatric radiologist (1)

|  |  |  |  |
| --- | --- | --- | --- |
|  | No | Yes | Total |
| No | 142 | 31 | 173 |
| Yes | 32 | 24 | 56 |
| Total | 174 | 55 | 229 |

External pediatric radiologist (2)  
 Obs. agreement = 72%, PABAK = 0.45, 0.25

**Item:** Pleural effusion

External pediatric radiologist (1)

|  |  |  |  |
| --- | --- | --- | --- |
|  | No | Yes | Total |
| No | 167 | 23 | 190 |
| Yes | 4 | 34 | 38 |
| Total | 171 | 57 | 228 |

External pediatric radiologist (2)  
 Obs. agreement = 88%, PABAK = 0.76, 0.64

**TABLE S4:** Concordance analyzes on the radiographic pattern. Obs. agreement: Inter-observer agreement of pediatric radiologists; PABAK: prevalence and bias adjusted kappa; Cohens Kappa

**Item:** Lobarpneumonia

External pediatric radiologist (1)

|  |  |  |  |
| --- | --- | --- | --- |
|  | No | Yes | Total |
| No | 178 | 16 | 194 |
| Yes | 13 | 25 | 38 |
| Total | 191 | 41 | 232 |

External pediatric radiologist (2)  
 Obs. agreement = 88%, PABAK = 0.75, 0.56

**Item:** Bronchopneumonia

External pediatric radiologist (1)

|  |  |  |  |
| --- | --- | --- | --- |
|  | No | Yes | Total |
| No | 160 | 24 | 184 |
| Yes | 28 | 20 | 48 |
| Total | 188 | 44 | 232 |

External pediatric radiologist (2)  
 Obs. agreement = 78%, PABAK = 0.55, 0.30

**Item:** Interstitial pneumonia

External pediatric radiologist (1)

|  |  |  |  |
| --- | --- | --- | --- |
|  | No | Yes | Total |
| No | 193 | 27 | 220 |
| Yes | 10 | 2 | 12 |
| Total | 203 | 29 | 232 |

External pediatric radiologist (2)  
 Obs. agreement = 84%, PABAK = 0.68, 0.03

Tabel S5: see additional file