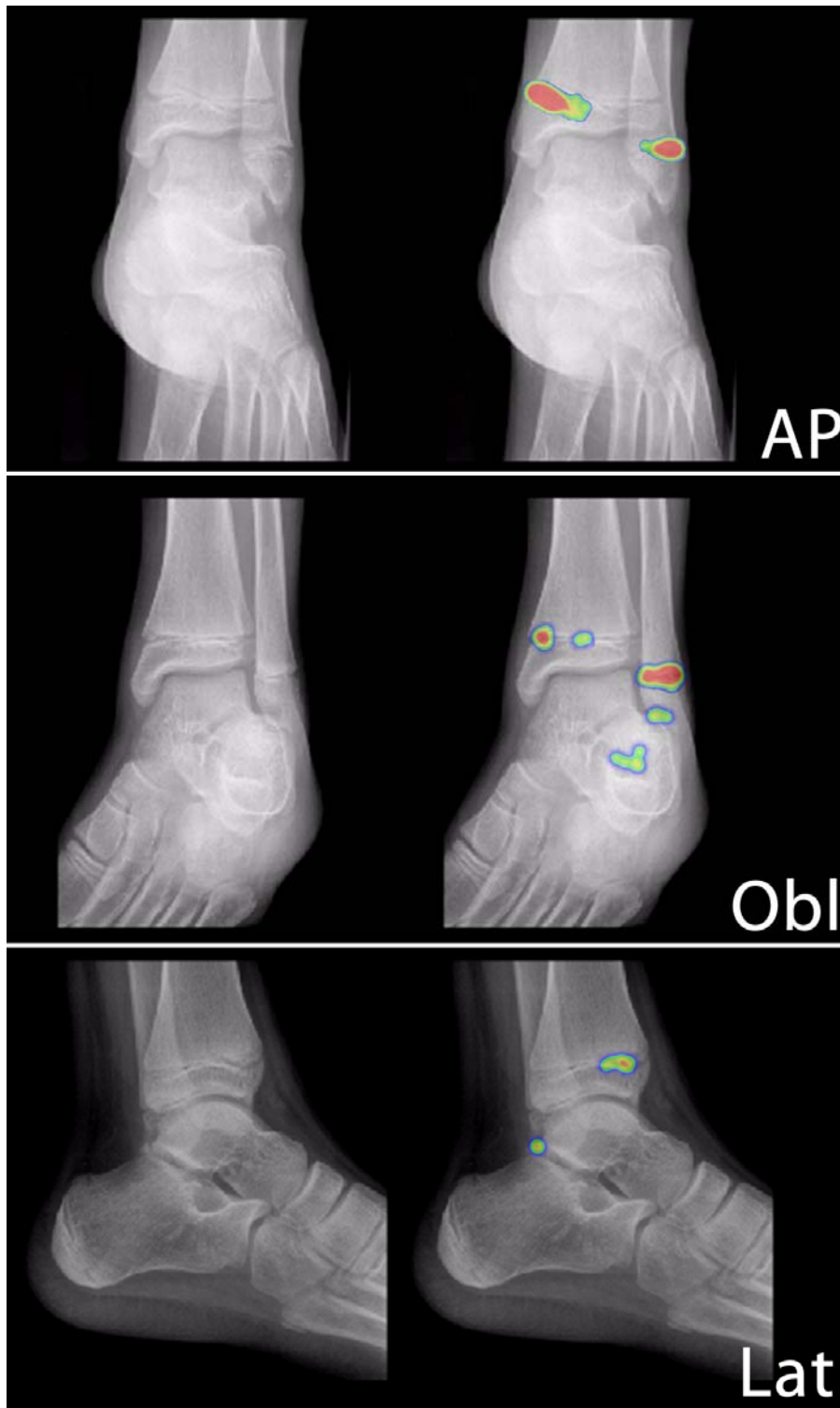**Supplemental Digital Appendix 3**
Color Version of Figure 4

Example of how learning analytics could support metacognition. Images show a normal pediatric ankle radiograph case of a 10-year old child. The unmarked original radiograph views are on the left, while on the right the same images are overlaid with a heat map representation of how often an area was erroneously specified as being an abnormal feature (warmer areas, represented by red/orange shades correspond to higher frequency. In this case, 81 of 115 (70.4%) medical students that took part in our hinting study[33] incorrectly classified the case as having a fracture, often confusing features of the growth plates with potential fractures. Feedback based on this information could strengthen learners' mental model of the characteristics of a fracture versus normal features.

Abbreviations: AP indicates anteroposterior; Obl, oblique; Lat, lateral.