**Supplemental Materials**

**Case Descriptions**

The conditions below are given a list of accepted diagnoses to be considered correct, with the criteria developed in consultation with the expert panel.

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| **Condition** | **Abbreviation** | **Presenting Complaint** | **Accepted Answers** |
| Temporal Arteritis | TA | Patient is a 68 year old male presented with fever and arthralgia. | Any inflammatory arthritis is accepted |
| Ulcerative Colitis | UC | Patient is a 60 year old male presented with 2 day history of bloody diarrhoea. | Infectious colitis, ischemic colitis and diverticulitis are also accepted answers. |
| Miliary Tuberculosis | MTB | Patient is a 62 year old male admitted for fevers and generalised weakness. | Any TB or lymphoma type is accepted |
| Aortic Dissection | AD | Patient is a 58 year old female presented with shortness of breath. | Pulmonary embolism and coarctation of the aorta are also accepted answers. Aortic stenosis |
| Guillain-Barré Syndrome | GBS | Patient is a 67 year old male presented with weakness of the legs for 24 hours. | Cauda Equina Syndrome is also accepted |
| Thrombotic Thrombocytopenic Purpura | TTP | Patient is a 20 year old male was admitted from an outside hospital  with complaints of a headache and slurred speech. | ITP or Meningitis are also accepted. |

*Table S1: Criteria used to mark correctness of differentials provided for each case.*

**Study 2 (Think-Aloud) Post-Study Interview Questions**

Each question has a corresponding follow-up question below in case they are not answered by responses to the main questions.

**1. What's your general approach to making diagnoses?**

Follow-Up: Do you have those cognitive aids or frameworks you use?

**2. Do you tend to keep a broad set of differentials in mind?**

Follow-Up: Are there particular situations where having a narrower set would be more useful?

**3. How do you decide what information or tests to get on a patient?**

Follow-Up: Would you say you tend to seek information to confirm or to rule out differentials that you have in mind?

**4. How similar was your diagnostic reasoning on this task versus how you would approach diagnosis in real life?**

Follow-Up: Was there anything that prevented you from approaching the task as you would in real life?