Example Case Studies:

1. A 95 yr old man with diabetes, lung cancer, and heart disease develops fever, chills, chest pain, persistent cough and rusty color sputum. Analysis of the sputum reveals pairs of gram + cocci with a capsule.

2. A child has a fever, sore throat, and a characteristic red swollen tongue. Throat swab culture shows gram + cocci in chains.

3. A 5 year old boy has a rash on his face. In the mouth shows reddish patches with whitish centers (Koplik's spots); history shows that he did not receive the recommended immunizations. Pathogen is ss RNA virus with envelope.