

Selected implicit biases in a healthcare context with definitions illustrated with an example of a patient presenting with chest pain.

Type of Implicit Bias	Definition	Practical Example
Affective or visceral bias	Countertransference or a physician's feeling towards the patient results in misdiagnosis.	The patient presenting with chest pain reminds you of a relative that you know well, so you do not perform a full history or examination.
Anchoring bias	Focusing on initial information in a patient's presentation results in an early diagnosis made despite pertinent information available later during information gathering.	You perceive the patient presenting with central chest pain to have gastro-oesophageal reflux and do not change your provisional diagnosis despite history-taking revealing chest pain radiating to the back.
Premature closure	Making a diagnosis before a full assessment is performed.	You make a diagnosis of pneumonia for a patient presenting with right-sided chest pain and breathlessness with marked hypoxia, but do not consider a pulmonary embolus as an additional contributory cause.
Availability bias	Recent encounters with a specific disease keep that disease in mind (more available) and increases the chance of making that diagnosis. Alternatively, less frequent encounters with a disease (less available) decrease the chance of making that diagnosis.	You perceive patients with pleuritic chest pain to have a pulmonary embolism despite low overall risk and send them for a computed tomography pulmonary angiography as a result of recently missed pulmonary embolism.
Confirmation bias	Seeking and accepting only information that confirms a diagnosis rather than information that refutes a diagnosis.	You perceive the patient with left sided chest pain and raised troponin to have a myocardial infarction, but do not consider other causes of raised troponin.
Commission (action) bias	Action rather than inaction prevents patient harm driven by beneficence; i.e., believing that more is better.	You prescribed two antibiotics, against local guidance, to the patient who presented with right-sided chest pain diagnosed with pneumonia 'just in case.' You perceive the patient recovery as a result of your action rather than a less virulent disease.
Omission (inaction) bias	Inaction rather than action prevents patient harm driven by non-maleficence; i.e., believing that less is better. Omission bias is thought to be more prevalent than commission bias.	You prescribed no antibiotics for the patient who presented with pleuritic chest pain diagnosed with a lower respiratory tract infection. The patient does not recover which you attribute to virulent disease progression rather than inaction.
Diagnostic momentum	Reinforcing a diagnosis that was once a possibility suggested by different stakeholders related to the patient including professionals that now becomes a certainty despite evidence to the contrary. This may involve continuing with a previous clinician's management plan despite new information suggesting that this is unnecessary.	You and your fellow team members agree with your consultant/attending physician who makes a provisional diagnosis of pneumothorax for a patient presenting with pleuritic chest pain, but is contradicted by fevers and cough as symptoms.
Gambler's fallacy	Believing that a condition cannot be the diagnosis having made the diagnosis repeatedly on several occasions; i.e., the pre-test probability is affected by previous independent events. Reference to a gambler's false belief that flipping a coin five times resulting with heads increases the chance of tails on the sixth occasion.	You diagnose all of the five preceding patients presenting with chest pain as having a myocardial infarction and believe there is less chance that the next patient will have the same diagnosis.
Overconfidence bias	Overestimation in one's own ability to know more than they actually do, also known as the Dunning-Kruger effect, placing more emphasis on judgement rather than objective markers.	You diagnose a patient presenting with left sided pleuritic chest pain after blunt trauma as having soft tissue injury as they have a normal respiratory examination rather than making a provisional diagnosis of pneumothorax and sending the patient for chest X-ray.
Sutton's slip or law	Making the most obvious diagnosis without considering other possibilities; named after bank robber Willie Sutton.	You diagnose a young patient presenting with breathlessness and chest pain on exertion as late-onset asthma without considering less likely, but possible diagnoses, such as stable angina.
Hindsight bias	Believing a diagnosis is more likely after it becomes known compared with before it was known. There are three types known as memory distortion, inevitability, and foreseeability.	You are criticized for missing a diagnosis of pulmonary embolism in a middle-aged man who presented with chest pain and collapse when the computed tomography pulmonary angiography was initially reported as normal when the patient self-discharged home. The scan was amended the next day to show a pulmonary embolism, but the patient unfortunately died.