



The Patient Identification System is designed to ensure accurate and reliable association of medical data with the correct patient profiles, a critical operation in healthcare settings where data integrity can directly impact patient care outcomes. In this system, the PatientIdentifier class is central, responsible for matching incoming data with existing patient records to ensure data accuracy. This class methodically verifies each piece of data against the patient database, utilizing methods such as matchDataToPatient() and verifyPatientIdentity() to perform these checks.

The PatientRecord class acts as a repository for all personal and medical information about a patient, including identification numbers, names, dates of birth, and detailed medical histories. This class is directly linked to PatientIdentifier, highlighting the direct relationship between data identification processes and the patient data they reference.

Management of identification discrepancies and ensuring the integrity of patient records is handled by the IdentityManager. This class oversees the identification process, stepping in to handle any anomalies or mismatches that occur. It uses methods like handleDiscrepancies() and validateRecordIntegrity() to maintain the accuracy and reliability of patient data across the system.

The arrows in the diagram indicate the flow of data and control. PatientIdentifier sends patient data to PatientRecord once it confirms a match, ensuring that only verified data is stored. IdentityManager is shown overseeing and interacting with PatientIdentifier, emphasizing its role in managing and auditing the identification process. This structure supports a robust framework for patient identification, essential for maintaining high standards of care and data precision in medical operations.