How Current Payment Systems and Benefit Designs Contribute to Diagnostic Errors

- Evaluation and Management (E&M) Services payments penalize physicians for spending extra time to determine an appropriate diagnosis for a patient or to choose appropriate diagnostic tests.
  - In Medicare, if a physician spends 20 minutes with patients billed as Level 3 E&M visits instead of 15 minutes, the physician practice will receive 25% less revenue per hour.
  - If a physician spends 25 minutes with a patient and bills a Level 4 E&M visit instead of spending 15 minutes and billing a Level 3 visit, the physician practice will receive 11% less revenue per hour.
- Physicians receive no payment from Medicare or most commercial payers for time spent contacting another physician by phone or email to obtain or provide assistance in determining an accurate diagnosis or in determining the appropriate tests or referrals needed to do so.
- A specialist with the expertise and experience to immediately and accurately diagnose an unusual symptom or combination of symptoms with a brief examination may not qualify even for the lowest-level E&M services payment, which requires a history and examination to be performed.
- Patients are required to pay cost-sharing (or the full cost of office visits under high deductible health plans), which discourages them from seeing specialists, obtaining tests needed to support an accurate diagnosis, or returning to a physician for follow-up based on the results of initial testing.
- Physicians receive no additional payment for proactive outreach to patients to encourage them to obtain tests or visit specialists to establish accurate diagnoses, to make follow-up visits based on test results, to arrange for repeat tests if the wrong tests were ordered or the tests were performed poorly, or to ensure that patients receive appropriate treatment for problems.
- In many areas, there are long delays in scheduling office visits with specialists, which can result in the progression of disease or irreversible complications before a diagnosis is established. Many specialists report that a major cause of the delays is that their schedules are filled with patients whose needs could have been addressed by telephone (or email) sooner and more efficiently.
- Providers are paid for interpreting diagnostic studies and for patient visits in which a diagnosis is assigned whether the interpretations and diagnoses are accurate or not.
- Providers are paid the same for collecting blood or tissue samples or conducting imaging studies whether or not the work was done adequately to support accurate interpretation and diagnosis.
- There is no penalty for ordering unnecessary tests that could lead to false positive results.
- Physicians are paid far more for treating a problem than for determining that a patient does not have a problem, so a physician (who provides treatment for a condition) is penalized financially for determining that patients do not have the problems the physician treats.
- Providers are paid for treatments even if the diagnosis is later determined to be inaccurate.
- Many quality measures in pay-for-performance systems are based on patients with a particular diagnosis, which can discourage assigning the diagnosis in uncertain cases particularly if the patient is likely to be non-adherent or otherwise difficult to achieve quality standards.
- Shared savings and global payment systems that risk adjust payments based on claims-based diagnosis codes reward over-diagnosis of patients.
- There is no payment to support time spent to carry out retrospective analyses of cases to identify diagnostic errors and conduct root cause analyses or to provide feedback to providers.
Changes to Payment Systems and Benefit Designs to Support Accurate Diagnosis

1. **Pay for Adequate Time for Assessment and Follow-Up for Patients with New Problems**

   At a minimum, the bias in favor of 15 minute office visits in the current RBRVS structure for E&M Services should be eliminated, so that physician practices are not penalized financially for seeing patients with more complex problems or for spending the time necessary to establish an accurate diagnosis. It would likely make sense to increase the payment for higher-level E&M visits relative to lower-level visits, since the amount of time involved for physical examination, ordering and follow-up on tests and referrals, consultations with multiple physicians, etc. increases geometrically with the number of differential diagnoses. Alternatively, supplemental payments could be made for specific types of symptoms where diagnostic error is known to be high and/or there are high costs associated with errors.

2. **Pay for Utilization of Appropriate Use Criteria in Ordering Tests and Making Referrals**

   Because of the cost involved in incorporating and maintaining appropriate use criteria in electronic medical records and the time involved in utilizing them for individual patients, primary care physicians should be paid for use of electronic systems that automate the application of appropriate use criteria. Payments would be based on the rate of utilization of the system and the rate at which tests/referrals are ordered consistent with the criteria in the system.

3. **Pay to Support an Effective Medical Neighborhood for the Primary Care Medical Home**

   If primary care physicians continue to be paid primarily under current fee-for-service structures, both the primary care physician and specialists should be paid for telephone consults or e-consults with patients. To ensure efficient use of these consultations, the primary care physician could be required to have a referral agreement (similar to what has been developed by the American College of Physicians) with any specialists with whom frequent consultations are made, and the payments to the primary care physician for consultations could be reduced if the rate of consultations was unusually high. If measures of diagnostic accuracy were developed, higher payments could be provided for consultations with more accurate specialists. Alternatively, a PMPM payment could be provided to PCPs and specialists to support consultations instead of per-consultation fees if they have referral agreements in place.

4. **Reduce or Eliminate Patient Cost-Sharing for Referrals and Testing to Establish Diagnoses**

   For referrals to specialists made by a primary care physician, and for diagnostic tests ordered by a primary care physician consistent with appropriate use criteria, patients should have reduced or zero cost-sharing. The primary care physician would have accountability for controlling unnecessary referrals, and the patient would not be prevented from seeing specialists on their own as long as they were willing to pay the cost sharing amount. If the primary care physician is using appropriate use criteria for testing or referrals, patient cost-sharing could be differentiated based on the appropriateness score (e.g., low or zero cost-sharing for tests classified as definitely appropriate for the patient, moderate cost-sharing for tests classified as potentially appropriate, and high cost-sharing for tests classified as rarely appropriate).

5. **Measure and Reward Diagnostic Accuracy**

   Given the importance of accurate and timely diagnosis for good patient outcomes and avoidance of unnecessary healthcare spending, regular systems should be established to measure diagnostic accuracy, to provide feedback to physicians, and ultimately to reward physicians who have higher diagnostic accuracy. Similar to independent analyses of patient satisfaction and outcomes, this would require paying for independent retrospective analyses of random samples of cases.
Changes in Care Delivery to Support Accurate Diagnosis

1. **Establish Electronic Systems for Rapid Multi-Specialty Consultation on Diagnoses**
   
   As a complement to payment for electronic consultations between physicians, there should be technology to facilitate efficient and rapid communications between physicians in order to establish accurate diagnoses. This could include:
   
   - Easy-to-use templates for physicians to use in posing and responding to questions to support accurate diagnosis.
   - Pre-defined templates for sharing the most relevant test results and images in common areas of uncertainty.
   - Group messaging to multiple specialists to allow rapid narrowing of differential diagnoses.
   - Videoconferencing capability to allow remote real-time visualization of the patient by a specialist.

2. **Develop Appropriate Use Criteria for Tests and Referrals and Implement Them in Electronic Medical Records**
   
   Because of the difficulty primary care physicians face in determining which tests to order and when referrals are appropriate and the potential problems of both false positives and false negatives when inappropriate tests are ordered, PCPs should have access to easy-to-use electronic algorithms to help determine which tests are appropriate and when referrals are appropriate. Specialty societies should receive funding for maintaining clinical data registries and for developing appropriate use criteria based on the registries, and payments should be made to PCPs for utilization of the systems with the payments sufficient to cover both the operating costs of the systems and the time PCPs spend in using them.

3. **Develop Algorithms for Flagging Potential Misdiagnoses**
   
   As additional information is developed on the types of situations where diagnostic errors are most common and on the root causes of those errors, electronic systems should be developed to monitor for those situations and alert physicians and other healthcare professionals to the potential for diagnostic error and to potential methods of ensuring accurate diagnosis.