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**Luis J Soliz\*** (luis13soliz@gmail.com), 6114 W Grace St, Chicago, IL 60634, and **Maunak Rana**. *The application of Bayes' theorem for diagnosing herniated nucleus pulposus (HNP) based on physical exam findings.*

Primary care physicians routinely utilize physical exam findings to help support a diagnosis of lumbar radiculopathy. These findings can help dictate whether or not a patient will undergo further diagnostic workup or even possible surgical considerations. We obtain input data for Bayes' theorem and calculate the probability of having a lumbar herniated disc (HNP) given positive findings on commonly utilized physical exam maneuvers as part of the physical workup for HNP. The required information to calculate this was found within the orthopedic literature and includes the prevalence of lumbar HNP, the probability of a positive straight leg test (SLT) given that there is no HNP, the probability of a positive SLT given that there is HNP, the probability of a positive contralateral straight leg test (CSLT) given that there is no HNP, and the probability of a positive CSLT given that there is HNP. We found the probability of lumbar HNP given a positive SLT was only 3.8% and the probability of lumbar HNP given a positive CSLT was not much better at 6.9%. Given the low prevalence of lumbar HNP in the general population, one cannot trust pure physical exam findings when diagnosing lumbar HNP. (Received September 26, 2017)