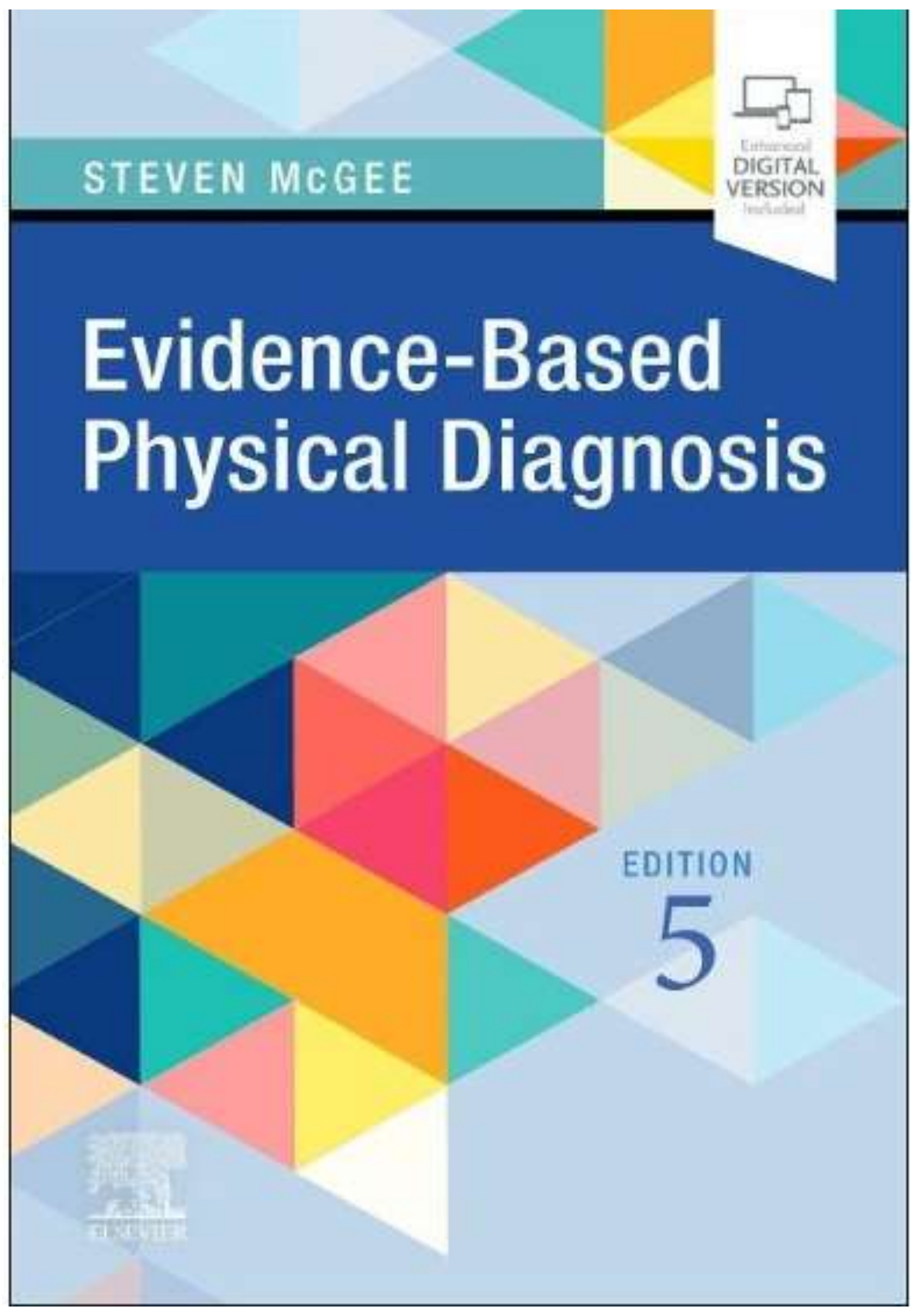
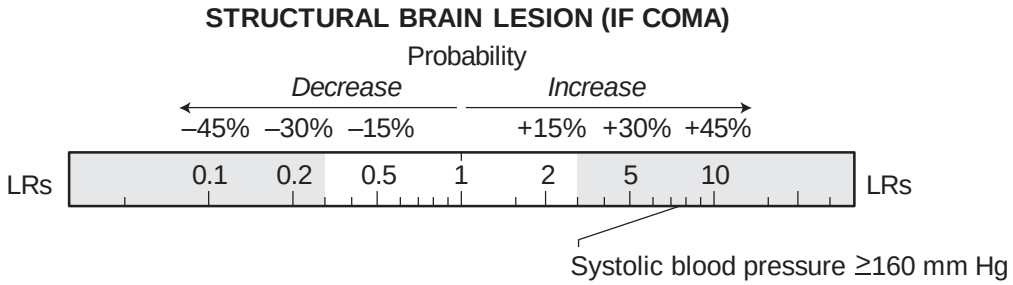

STEVEN McGEE
Enhanced DIGITAL VERSION included
Evidence-Based Physical Diagnosis
EDITION
5

EBM BOX 16-3
Systolic Blood Pressure and Impaired Consciousness

Finding (Reference)	Sensitivity (%)	Specificity (%)	Likelihood Ratio* if Finding Is	
			Present	*Absent*
Detecting Structural Brain Lesion				
Systolic blood pressure ≥160 mm Hg[89,90]	37-58	93-94	**7.3**	0.6

*Likelihood ratio (LR) if finding present = positive LR; LR if finding absent = negative LR.
Click here to access calculator.



H. BLOOD PRESSURE AND IMPAIRED CONSCIOUSNESS

Patients with impaired consciousness may have either a structural intracranial lesion (e.g., stroke or brain tumors) or metabolic encephalopathy (e.g., hepatic encephalopathy, diabetic coma, drug intoxication, or sepsis). Patients with structural lesions tend to have higher blood pressures (from reflex responses to increases in intracranial pressure—the Cushing reflex—or from the etiologic association of hypertension and stroke) than patients with metabolic encephalopathy (whose severe comorbidities often are associated with lower blood pressure). In two studies of consecutive patients with impaired consciousness (i.e., Glasgow coma scale score <15) but no history of head trauma, a systolic blood pressure of 160 mm Hg or higher significantly increased the probability of a structural lesion (LR = 7.3; EBM Box 16-3).

I. CAPILLARY FRAGILITY TEST (RUMPEL-LEEDE TEST)

Traditionally, the blood pressure cuff also was used to test capillary fragility, although measurements of blood pressure were not part of the test. Capillary fragility tests were designed to detect abnormally weakened capillary walls in the skin that would burst more easily when distended, resulting in the appearance of high numbers of petechiae. The diseases associated with capillary fragility were legion, ranging from coagulopathies, vitamin deficiencies (e.g., scurvy), infectious diseases (e.g., scarlet fever), and endocrine disorders (e.g., hyperthyroidism) to dermatologic disorders (e.g., Osler-Weber-Rendu syndrome).[91] Both negative and positive pressure methods were used. The negative pressure technique applied suction

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