

urine can also provide a rough estimate of protein excretion; for example, a protein/creatinine ratio of 3.0 correlates to ~3.0 g of proteinuria per day. Formal assessment of urinary protein excretion requires a 24-h urine protein collection (see “Measurement of GFR,” above).

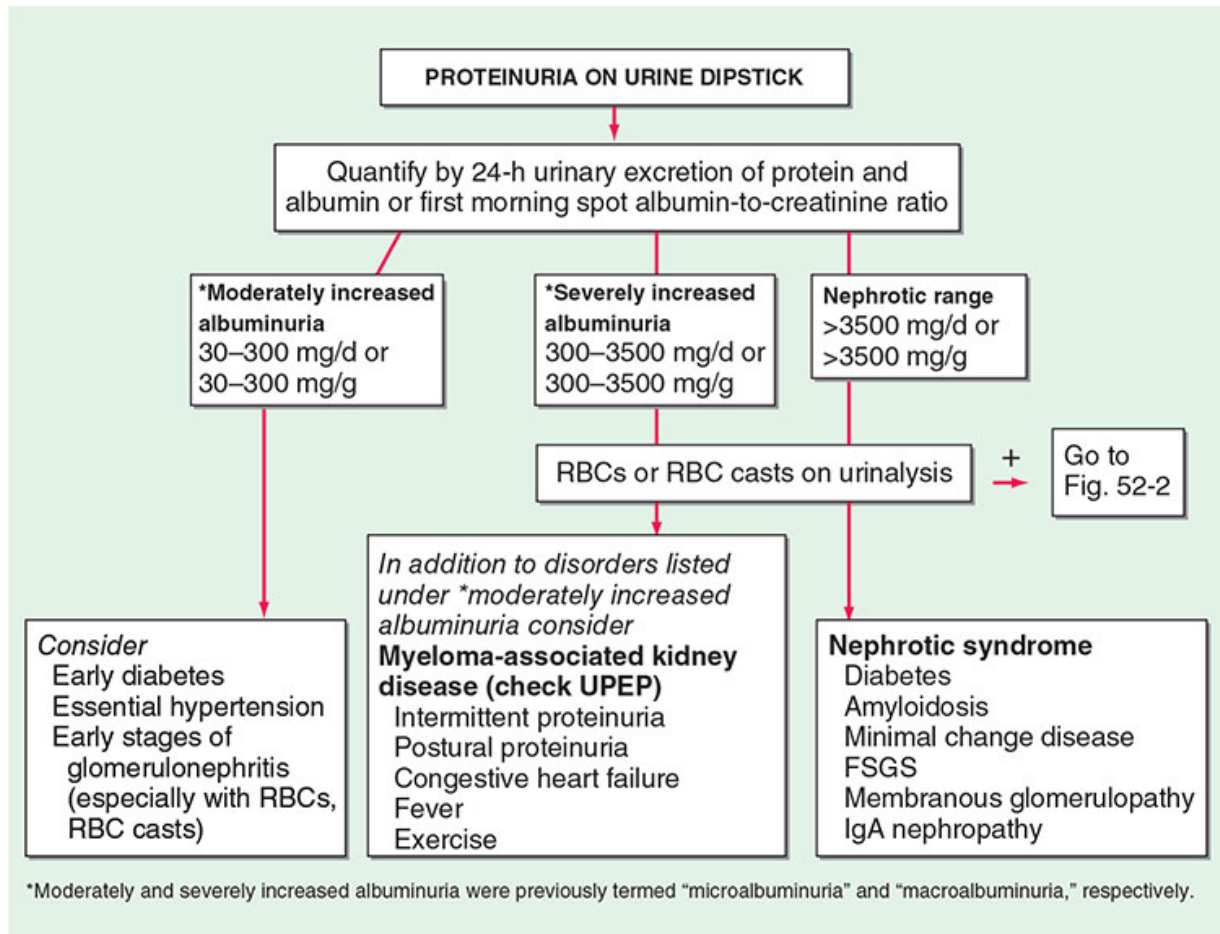


FIGURE 52-3 Approach to the patient with proteinuria. Investigation of proteinuria is often initiated by a positive dipstick on routine urinalysis. Conventional dipsticks detect predominantly albumin and provide a semiquantitative assessment (trace, 1+, 2+, or 3+), which is influenced by urinary concentration as reflected by urine specific gravity (minimum, <1.005; maximum, 1.030). However, more exact determination of proteinuria should employ a spot morning protein/creatinine ratio (mg/g) or a 24-h urine collection (mg/24 h). FSGS, focal segmental glomerulosclerosis; RBC, red blood cell; UPEP, urine protein electrophoresis.

The magnitude of proteinuria and its composition in the urine depend on the mechanism of renal injury that leads to protein losses.