Chronic urinary retention (CUR) is a poorly defined entity, as the key element of definition, significant postvoid residual urine volume (PVR), has not a worldwide and moreover evidenced-based definition. There is no agreement on which is the threshold value to define a significant PVR and different society produced guidelines with different thresholds ranging from 300 mL to 1000 mL. Diagnosis is difficult, and management has not been defined yet. There is a lack of studies on the best management of these patients, as this group of patients has always been considered at high risk of failure. Only one study compares conservative with the surgical management but it is not a randomised controlled trial. This review offers a systematic appraisal of the most recent publications on CUR. It indicates the absence of a real worldwide agreed definition, as the two keys element of it are not satisfactorily defined yet: significant PVR, is suffering from a lack of evidenced-based definition, and percussable or palpable bladder is a very nebulous concept as it is not a criteria of certainty as different individual variables affect it. This has an important effect on management which is not structured. Most of the trials involving benign prostatic hyperplasia treatments (either medical or surgical) tend to exclude this group of patients, which is a clinically important group, comprising up to a quarter of men undergoing TURP in the UK. Urinary retention describes a bladder that does not empty completely or does not empty at all. Historically, urinary retention has been classified as either acute or chronic the latter is generally classified as high pressure or low pressure according to the bladder filling pressure on urodynamic. A MEDLINE® search for articles written in English and published before January 2010 was done using a list of terms related to urinary retention: 'urinary retention', 'chronic urinary retention' and 'PVR'. Chronic urinary retention (CUR) is defined by the International Continence Society as 'a non-painful bladder, which remains palpable or percussable after the patient has passed urine'. Abrams was the first to choose a residual urine volume >300 mL to define CUR as he considered it the minimum volume at which the bladder becomes palpable suprapubically. The UK National Institute for Health and Clinical Excellence lower urinary tract symptoms (LUTS) guidelines define CUR as a postvoid residual urine volume (PVR) of >1000 mL. No studies have specifically addressed the problem of quantifying the minimum amount of urine present in the bladder to define CUR. Nor did we find any publications objectively assessing at what amount of urine a bladder can be palpable. The ability to feel a bladder may rely on variables (i.e. medical skills and patient habitus). There is a marked variability of PVR, so the test should be repeated to improve precision. As defining CUR is difficult, structured management is challenging. Nearly all prospective trials exclude men with CUR from analysis, possibly anticipating a poor outcome and a high risk of complications. However, men with CUR are a clinically important group, comprising up to 25% of men undergoing transurethral resection of the prostate. Definition of CUR is imprecise and arbitrary. Most studies seem to describe the condition as either a PVR of >300 mL in men who are voiding, or >1000 mL in men who are unable to void. This confusion leads to an inability to design and interpret studies; indeed most prospective trials simply exclude these patients. There is a clear need for internationally accepted definitions of retention to allow both treatment and reporting of outcomes in men with LUTS, and for such definitions to be used by all investigators in future trials.