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| --- | --- | --- | --- | --- | --- | --- |
|  | Normal | Constrictive | Compressive | Fluctuating | Intermittent | Tower-shaped |
| ICS (Schafer et al.2 2002, Abrams et al.5 2002, Haylen et al.62010) | smooth arc-shaped, high amplitude, no rapid amplitude changes | smooth flat, plateau-like, lower flow rate | flattened asymmetric low curve with a slowly declining end part | multiple peaks during a period of continuous urine flow | flow stops and starts during single void |  |
| ICCS (Austin et al.7 2014) | ’'bell-shaped': regardless of volume voided | 'plateau': Flattened, prolonged pattern with low amplitude |  | 'staccato': irregular, fluctuating curve without reaching zero. Fluctuations >square root of Qmax | 'interrupted': segments with cessation, discrete peaks | sudden, high-amplitude flow with short duration |
| Fantl10 1983 | fast crescendo and relatively slowdiminuendo, minimal fluctuations |  |  | 'multiple peak': 2nd peak >= 20% ofQmax | 'interrupted'; flow rate < 2 ml/sbetween repetitive peaks |  |
| Jensen et al.20 1983 | 'adult' | 'plateau': flow rate variation<1ml/s for at least 4 seconds |  | 'intermittent': wavy curve not reachingthe baseline with a duration of at least 15 seconds | 'fractionated': wavy curve reachingbaseline several times, for at least 15 seconds |  |
| van der VIS-MELSEN et al.23 1989 | 'single sharp peak' |  | 'low flat': flat pattern with low averageand maximum Index of Urine Transport value | 'sawtooth': low average, and normal maximum, Index of Urine Transport |  |  |
| Boothroyd et al.15 1990 | bell-shaped and approximatelysymmetrical | 'plateau': prolonged voiding time andreduced Qmax |  |  | 'sawtooth' |  |
| Jorgensen et al.21 1990 | unbroken, bell-shaped with slight to moderate asymmetry | 'plateau': unbroken, flattened, large part of voided volume is voided by aconstant Qmax | 'prostatic': unbroken, pronounced asymmetry, elongated and flattenedcurve from Qmax to zero | unbroken, greater fluctuations without reaching baseline | 'fractioned': discontinuous, flow reaches baseline one or several times |  |
| Kinahan et al.19 1992 |  | 'prolonged': low, steady Qmax | 'approximately normal': normalinitiation and Qmax, end voidprolongation |  | 'intermittent' |  |
| Mattsson et al.22 1994 | bell-shaped |  |  | 'intermittent': variations in flow rate ofat least 5 ml/s | 'fractionated': at least one totalinterruption |  |
| Gutierrez12 1997 | 'bell shape' | 'plateau-shaped': constant flow with variations<1ml/s |  |  |  | high Qmax achieved rapidly, followedby a slight plateau and sudden decreased flow |
| Jorgensen et al.17 1998 | bell-shaped, unbroken, steep rise to Qmax and steep fall | 'plateau': flattened with a steepacceleration toward Qmax, relativelylarge volume under a constant Qmax | 'low flow': unbroken, bell-shaped flattened with a low Qmax | unbroken flow, less steep rise and fall, without reaching baseline | 'fractionated': discontinuous flow reaches baseline one or several times | 'high flow': very high Qmax with short voiding time |
| Wyndaele8 1999 | symmetrical, uninterrupted,Qmax>15ml/s | 'long flow+low max flow' | 'slow start': slow rises to Qmax | 'undulating': flow moving up and down | 'void 2x': voiding 2 times withcomplete stopping of flow between |  |
| Chou et al.16 2000 | bell-shaped and rapid rise to Qmax and rapid fall. | 'plateau': flattened with a steepacceleration toward Qmax, relatively large volume under a constant Qmax | 'flattened‘: flattened with a low Qmax | flow fluctuates but does not reach baseline | 'intermittent': flow reaches baseline at least once | 'tall and peaked' |
| Ghobish18 2000 | 'bell-shaped': Qr 25%-75% and Tr 25-60% | 'box-shaped': Qr>80% and Tr<10% | 'long-tail': 30%<Qr<60% and10%<Tr<25% |  | 'interrupted': subdivided withinterruption duration threhold of 2s |  |
| Babu et al.14 2004 | 'bell-shaped': bell shape, smoothpattern | 'plateau-shaped': constant flow withvariations<1ml/s |  |  |  |  |
| Pauwels11 2005 | continuous, bell-shaped, steep slope and short flow time | 'long and low Qmax': long flow time,relatively constant low flow rate |  | 'undulating': asymmetric, steep slope, long and flattened foothill | 'fractionated': discontinuous, repetitive flow peaks reaching zero in between |  |
| Abrams5 2006 | 'bell shape': Qmax in first 30% of curve and within 5 seconds from start | 'plateau': Qave almost same as Qmax |  |  | flow stops and starts on one or more occasions | 'supranormal': sharply increased flowto a very high Qmax in 1-3 second,followed by a sudden reduction |
| Mostafavi et al.13 2012 | 'bell': symmetric, continuous curvebetween 5% and 90% of Iranian nomogram | 'plateau': Qmax/flow time<0.5 |  | 'staccato': fluctuations > square root of Qmax | 'interrupted': curve reaches baseline | 'tower': Qmax>95% on Iranian nomogram |