



KAISER PERMANENTE[®]

Mid-Atlantic States

Transurethral Water Jet Ablation (Aquablation) for Benign Prostatic Hypertrophy Medical Coverage Policy

UTILIZATION * ALERT*

- Prior to use of this MCP for evaluation of medical necessity, benefit coverage **MUST** be verified in the member's EOC or benefit document.
 - Please refer to CMS guidelines or Medicare Coverage Database for Medicare members.
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I. Procedure: **Transurethral Water Jet Ablation (Aquablation)**

II. Diagnosis: Benign Prostatic Hypertrophy

III. **Clinical Indications for Referral**

Transurethral water jet ablation (Aquablation) is considered medically necessary once per lifetime for the treatment of lower urinary tract symptoms (LUTS) due to benign prostatic hyperplasia (BPH) when **ALL** of the following criteria are met:

- A. Prostate volume is between 30-150 cc via transrectal ultrasound; **and**
- B. Persistent moderate to severe symptoms despite maximal medical management including the following:
 1. Maximum urinary flow rate (Q_{max}) of ≤ 15 mL/s⁴ (voided volume greater than 125 cc); **OR**
 2. International Prostate Symptom Score (IPSS) ≥ 12 ; **and**
- C. Contraindicated, intolerance or failure to at least three months of conservative medical treatment for LUTS/BPH (Alpha-1-receptor antagonists, 5-Alpha reductase Inhibitors, or Anticholinergics).

IV. **Contraindication and Limitation**

A. **Contraindication**

Transurethral waterjet ablation of the prostate is contraindicated in patients with **any** of the following:

1. Active urinary tract or systemic infection; or
2. Known allergy to device materials; or
3. Inability to safely stop anticoagulants or antiplatelet agents preoperatively; or
4. Known or suspected prostate cancer or a prostate specific antigen (PSA) >10 ng/mL unless there was a negative prostate biopsy within the last 6 months.

B. **Limitation**

Transurethral waterjet ablation of the prostate is not medically necessary in the presence of **any** of the following:

1. Body mass index ≥ 42 kg/m²; **or**



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2. Bladder cancer, bladder calculus, neurogenic bladder, or clinically significant bladder diverticulum; **or**
3. Diagnosis of urethral stricture, meatal stenosis, or bladder neck contracture; **or**
4. Damaged external urinary sphincter; **or**
5. Treatment for chronic prostatitis

V. Risks

The following are potential risks from operation of the aquablation device:

- A. Bleeding;
- B. Bruising;
- C. Bladder or prostate capsule perforation;
- D. Dysuria;
- E. Embolism;
- F. Electromagnetic interference or electrical shock;
- G. Failure to remove target tissue or non-target tissue removal;
- H. Rectal incontinence or perforation;
- I. Sexual dysfunction including erectile and ejaculatory dysfunction;
- J. Transurethral resection syndrome;
- K. Urethral damage causing false passage or stricture;
- L. Incontinence;
- M. Infection; and
- N. Pelvic or penile pain

VI. Description

AquaBeam Robotic System (Aquablation) manufactured by PROCEPT BioRobotics, is a class II (special controls) fluid jet system device which is intended for the resection and removal of prostate tissue in males who suffer from lower urinary tract symptoms (LUTS) due to benign prostatic hyperplasia. The robotic system was cleared by the FDA in December 2017.

Fluid jet system for prostate tissue removal is a device for treating benign prostatic hyperplasia by resecting and removing prostatic tissue through a pressurized jet of fluid to the prostatic urethra.



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References:

1. Centers for Medicare and Medicaid Services (CMS). Transurethral Waterjet Ablation of the Prostate Local Coverage Determination (LCD L38682). Accessed: 04/30/2024. <https://www.cms.gov/medicare-coverage-database/view/lcd.aspx?lcdId=38682&ver=8>
2. FDA Approval: De Novo Classification Request for AQUABEAM System. Accessed: 04/30/24 https://www.accessdata.fda.gov/cdrh_docs/reviews/DEN170024.pdf
3. Federal Register. Medical Devices; Gastroenterology-Urology Devices; Classification of the Fluid Jet System for Prostate Tissue Removal. A rule by Food and Drug Administration on 06/05/2018 <https://www.federalregister.gov/documents/2018/06/15/2018-12829/medical-devices-gastroenterology-urology-devices-classification-of-the-fluid-jet-system-for-prostate>
4. National Institute for Health and Care Excellence (NICE) Transurethral water jet ablation for Lower Urinary Tract Symptoms (LUTS) caused by BPH. September 2023 <https://www.nice.org.uk/guidance/ipg770#:~:text=Evidence%2Dbased%20recommendations%20on%20transurethral,tissue%20and%20widen%20the%20urethra.>
5. Nguyen, D. D., Barber, N., Bidair, M., Gilling, P., Anderson, P., Zorn, K. C., Badlani, G., Humphreys, M., Kaplan, S., Kaufman, R., So, A., Paterson, R., Goldenberg, L., Elterman, D., Desai, M., Lingeman, J., Roehrborn, C., & Bhojani, N.. WATER versus WATER II 2-Year Update: Comparing Aquablation Therapy for Benign Prostatic Hyperplasia in 30-80-cm³ and 80-150-cm³ Prostates. *European urology open science*, 25, 21–28. 2021. <https://doi.org/10.1016/j.euros.2021.01.004>
6. Desai, M., Bidair, M., Bhojani, N., Trainer, A., Arther, A., Kramolowsky, E., Doumanian, L., Elterman, D., Kaufman, R. P., Jr, Lingeman, J., Krambeck, A., Eure, G., Badlani, G., Plante, M., Uchio, E., Gin, G., Goldenberg, L., Paterson, R., So, A., Humphreys, M. R., ... Zorn, K. C. (2020). Aquablation for benign prostatic hyperplasia in large prostates (80-150 cc): 2-year results. *The Canadian journal of urology*, 27(2), 10147–10153. <https://pubmed.ncbi.nlm.nih.gov/32333733/>
7. Bach T, Gilling P, Hajj AE, Anderson P, Barber N. First multi-center all-comers study for the aquablation® procedure. *J Clin Med*. 2020;9(2):603-613. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7073705/>
8. Gilling, P. J., Barber, N., Bidair, M., Anderson, P., Sutton, M., Aho, T., Kramolowsky, E., Thomas, A., Kaufman, R. P., Jr, Badlani, G., Plante, M., Desai, M., Doumanian, L., Te, A. E., & Roehrborn, C. G. Five-year outcomes for Aquablation therapy compared to TURP: results from a double-blind, randomized trial in men with LUTS due to BPH. *The Canadian journal of urology*, 29(1), 10960–10968. 2022 <https://pubmed.ncbi.nlm.nih.gov/35150215/>
9. Gilling, P. J., Barber, N., Bidair, M., Anderson, P., Sutton, M., Aho, T., Kramolowsky, E., Thomas, A., Cowan, B., & Roehrborn, C. Randomized Controlled Trial of Aquablation versus Transurethral Resection of the Prostate in Benign Prostatic Hyperplasia: One-year Outcomes. *Urology*, 125, 169–173. 2019 <https://doi.org/10.1016/j.urology.2018.12.002>
10. Gilling, P., Barber, N., Bidair, M., Anderson, P., Sutton, M., Aho, T., Kramolowsky, E., Thomas, A., Cowan, B., Kaufman, R. P., Jr, Trainer, A., Arther, A., Badlani, G., Plante, M., Desai, M., Doumanian, L., Te, A. E., DeGuenther, M., & Roehrborn, C. (2020). Three-year outcomes after Aquablation therapy compared to TURP: results from a blind randomized trial. *The Canadian journal of urology*, 27(1), 10072–10079. <https://pubmed.ncbi.nlm.nih.gov/32065861/>



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11. Hwang, E. C., Jung, J. H., Borofsky, M., Kim, M. H., & Dahm, P. Aquablation of the prostate for the treatment of lower urinary tract symptoms in men with benign prostatic hyperplasia. The Cochrane database of systematic reviews, 2(2), CD013143. 2019 <https://doi.org/10.1002/14651858.CD013143.pub2>
12. Nguyen, D. D., Barber, N., Bidair, M., Gilling, P., Anderson, P., Zorn, K. C., Badlani, G., Humphreys, M., Kaplan, S., Kaufman, R., So, A., Paterson, R., Goldenberg, L., Elterman, D., Desai, M., Lingeman, J., Roehrborn, C., & Bhojani, N. Waterjet Ablation Therapy for Endoscopic Resection of prostate tissue trial (WATER) vs WATER II: comparing Aquablation therapy for benign prostatic hyperplasia in 30-80 and 80-150 mL prostates. BJU international, 125(1), 112–122. 2020. <https://doi.org/10.1111/bju.14917>
13. Zorn, K. C., Goldenberg, S. L., Paterson, R., So, A., Elterman, D., & Bhojani, N. (2019). Aquablation among novice users in Canada: A WATER II subpopulation analysis. Canadian Urological Association journal = Journal de l'Association des urologues du Canada, 13(5), E113–E118. <https://doi.org/10.5489/cuaj.5501>
14. Taktak, S., Jones, P., Haq, A., Rai, B. P., & Somani, B. K. Aquablation: a novel and minimally invasive surgery for benign prostate enlargement. Therapeutic advances in urology, 10(6), 183–188. 2018 <https://doi.org/10.1177/1756287218760518>
15. Bhojani, N., Bidair, M., Zorn, K. C., Trainer, A., Arther, A., Kramolowsky, E., Doumanian, L., Elterman, D., Kaufman, R. P., Lingeman, J., Krambeck, A., Eure, G., Badlani, G., Plante, M., Uchio, E., Gin, G., Goldenberg, L., Paterson, R., So, A., Humphreys, M., ... Roehrborn, C. (2019). Aquablation for Benign Prostatic Hyperplasia in Large Prostates (80-150 cc): 1-Year Results. Urology, 129, 1–7. <https://doi.org/10.1016/j.urology.2019.04.029>
16. Misrai, V., Rijo, E., Zorn, K. C., Barry-Delongchamps, N., & Descazeaud, A. Waterjet Ablation Therapy for Treating Benign Prostatic Obstruction in Patients with Small- to Medium-size Glands: 12-month Results of the First French Aquablation Clinical Registry. European urology, 76(5), 667–675. 2019 <https://doi.org/10.1016/j.eururo.2019.06.024>.
17. Kasraeian A, Alcantara M, Alcantara KM, Altamirando JA, Kasraeian A. Aquablation® for BPH: United States single-center experience. Can J Urol. 2020;27(5):10378-10381. <https://pubmed.ncbi.nlm.nih.gov/33049190/>
18. Desai, M., Bidair, M., Bhojani, N., Trainer, A., Arther, A., Kramolowsky, E., Doumanian, L., Elterman, D., Kaufman, R. P., Jr, Lingeman, J., Krambeck, A., Eure, G., Badlani, G., Plante, M., Uchio, E., Gin, G., Goldenberg, L., Paterson, R., So, A., Humphreys, M., ... Zorn, K. C. (2019). WATER II (80-150 mL) procedural outcomes. BJU international, 123(1), 106–112. <https://doi.org/10.1111/bju.14360>
19. Sandhu JS, Bixler BR, Dahm P, et al. Management of lower urinary tract symptoms attributed to benign prostatic hyperplasia (BPH): AUA Guideline amendment 2023. J Urol. 2023;10.1097/JU.0000000000003698. <https://doi.org/10.1097/JU.0000000000003698>
20. Kasivisvanathan, V., & Hussain, M. (2018). Aquablation versus transurethral resection of the prostate: 1 year United States - cohort outcomes. The Canadian journal of urology, 25(3), 9317–9322. <https://pubmed.ncbi.nlm.nih.gov/29900819/>



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Approval History

Effective June 01, 2016, state filing is no longer required per Maryland House Bill [HB 798](#) – Health Insurance – Reporting

Date approved by RUMC	Date of Implementation
05/23/2024	05/23/2024

*The Regional Utilization Management Committee received delegated authority in 2011 to review and approve designated Utilization Management and Medical Coverage Policies by the Regional Quality Improvement Committee.

Note: Kaiser Permanente Mid-Atlantic States (KPMAS) include referral and authorization criteria to support primary care and specialty care practitioners, as appropriate, in caring for members with selected conditions. Medical Coverage Policies are not intended or designed as a substitute for the reasonable exercise of independent clinical judgment by a practitioner in any particular set of circumstances for an individual member.