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Article

The Impact of MISTs on Australian BPO Surgical Trends

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Abstract: Background/Objectives: To evaluate the impact of Minimally Invasive Surgical Therapies (MISTs) on Australian trends for surgeries treating lower urinary tract symptoms (LUTSs) caused by benign prostatic obstruction (BPO). The recent adoption of the prostatic urethral lift (PUL) and water vapour thermal therapy (such as Rezum) into the Medicare Benefits Scheme (MBS) item schedule on the 1 March 2024 has likely had an impact on Australian surgical trends and we aim to describe their impact on the use of other commonly offered BPO-related surgeries. **Methods**: This study analyses population-adjusted rates of BPO-related surgeries in Australia from January 2004 to September 2024 using publicly available online Medicare Statistics and Census Data. Independent *t*-tests and significance levels were calculated to compare procedure rates before and after the introduction of PUL and Rezum in March 2024. **Results**: In total, 301,648 BPO surgical procedures were claimed under MBS in Australia from January 2004 to September 2024, with transurethral resection of the prostate (TURP) being the most common (78%). Procedure rates increased overall with significant shifts in treatment preference: TURP rates have steadily declined in Australia after peaking in 2009 (123.4 per 100,000 adult men), whilst photo-selective vaporisation of the prostate (PVP) and enucleation have risen. Following the introduction of PUL and Rezum on 1 March 2024, enucleation and simple prostatectomy rates increased, while Transurethral needle ablation (TUNA) and urethral and prostatic prosthesis (UPP) decreased. TURP rates were unaffected. **Conclusions**: Throughout the past two decades, BPO surgical trends in Australia have shifted, with TURP declining as PVP and enucleation have risen. The 2024 MBS listing for PUL and Rezum has boosted their uptake whilst reducing both TUNA and UPP claims. Simple prostatectomy rates remained stable.

Keywords: benign prostatic hyperplasia; BPO; minimally invasive surgical therapies; MISTs; Urolift; Rezum

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1. Introduction

Benign prostatic obstruction (BPO), a histological diagnosis, represents the most common benign tumour affecting adult men globally [1]. Whilst BPO and its associated lower urinary tract symptoms (LUTS) are not life-threatening, their ability to adversely impact a patient's quality of life is recognised and thus necessitates effective management.

For decades, transurethral resection of the prostate (TURP) has been the predominant surgical treatment for BPO. Although TURP has consistently demonstrated efficacy in

alleviating LUTS associated with BPO, its utilisation is accompanied by potential complications including haemorrhage, infection and sexual dysfunction. These complications have driven the pursuit of less invasive alternatives. In recent years, the adoption of novel Minimally Invasive Surgical Therapies (MISTs) has accelerated. These approaches offer a compelling alternative to TURP with promises of fewer sexual side effects and enhanced suitability for patients with various co-morbidities [2]. Examples of these MISTs include the prostatic urethral lift (PUL; UroLift System), water vapour thermal therapy (e.g., Rezum System by Boston Scientific, Boston, MA, USA), and the temporary implantable nitinol device (TIND) [3]. These interventions have emerged within the BPO surgical landscape over the past decade and are associated with lower rates of ejaculatory dysfunction, as well as the benefits of shorter recovery times and reduced perioperative risks. Moreover, several studies have demonstrated that these therapies offer comparable efficacy to TURP for postoperative maximum urinary flow rate Qmax, International Prostate Symptom Score (IPSS) and quality of life (QoL) outcomes [4].

In Australia, Medicare operates as a publicly funded, universal health insurance system available to all Australian citizens and certain overseas visitors. The Medicare Benefits Schedule (MBS) outlines item numbers corresponding to specific medical services for which the Australian Government provides rebates [5]. This system facilitates improved access to medical care and reduces up-front costs for Australian patients undergoing surgical treatment for BPO [6]. On 1 March 2024, the Rezum System and Prostatic Urethral Lift (UroLift) were incorporated into the MBS under new distinct item numbers: 37205 and 37204, respectively. However, the influence of these additions on patterns of BPO surgical management remains uncertain, including their impact on the utilisation of other established surgical techniques. This study aims to characterise and describe the evolving landscape of BPO surgical management in Australia over the past two decades, with an added focus on developments in the last six months. Particular attention is given to the introduction of these new item numbers in the MBS and their effect on surgical trends, including the potential cannibalisation of other commonly performed BPO procedures.

2. Materials and Methods

2.1. Data Sources

The Australian Government Services Australia offers publicly accessible statistical data on claims for Medicare Benefits Schedule (MBS) items, intended for general information use [7]. These data encompass procedures claimed under specific item numbers by registered medical practitioners in Australia that qualify for medical benefit reimbursement. Although this dataset does not account for services rendered to public patients in public hospitals, the majority of elective surgical procedures are performed within the private healthcare sector [8]. Population-based census data from the Australian Bureau of Statistics (ABS) were utilised to calculate incidence rates per 100,000 adult males for each individual BPO surgical procedure [9].

2.2. Data Collection

MBS item reports were obtained in September 2024, encompassing monthly and annual data reports spanning the last two decades from January 2004 to August 2024 (the most recent data available). Table 1 highlights the MBS item numbers analysed and their corresponding BPO surgical procedures. Item number 36854, associated with bladder neck incisions, was intentionally excluded from the analysis as this surgical modality also includes patients with bladder neck stenosis, unrelated to BPO.

Table 1. MBS item numbers used for data collection.

MBS Item Code	Details
36811 [a]	Cystoscopy, with insertion of one or more urethral or prostatic prostheses, other than a service associated with a service to which item 37203, 37207 or 37230 applies.
37200 [b]	Prostatectomy by open, laparoscopic or robot-assisted approach.
37201 [c]	Prostate, transurethral radio-frequency needle ablation of, with or without cystoscopy and with or without urethroscopy, in patients with moderate to severe lower urinary tract symptoms who are not medically fit for transurethral resection of the prostate (that is, prostatectomy using diathermy or cold punch) and including services to which item 36854, 37203, 37207, 37208, 37245, 37303, 37321 or 37324 applies.
37203 [d]	Prostatectomy, transurethral resection using cautery, with or without cystoscopy and with or without urethroscopy, and including services to which item 36854, 37201, 37207, 37208, 37245, 37303, 37321, or 37324 applies.
37204 [e]	Cystoscopy with insertion of prostatic implants for the treatment of benign prostatic hyperplasia.
37205 [f]	Prostate, ablation by water vapour with or without cystoscopy and with or without urethroscopy.
37207 [g]	Prostate, endoscopic non-contact (side-firing) visual laser ablation with or without cystoscopy and with or without urethroscopy, including services to which item 36854, 37201, 37203, 37245, 37303, 37321 or 37324 applies.
37230 [h]	Transurethral microwave thermotherapy (TUMT) for benign prostatic hyperplasia (BPH)
37245 [i]	Prostate, endoscopic enucleation of, for the treatment of benign prostatic hyperplasia: (a) with morcellation, including mechanical morcellation or by an endoscopic technique; (b) with or without cystoscopy; and (c) with or without urethroscopy, and other than a service associated with a service to which item 36827, 36854, 37008, 37201, 37203, 37208, 37303, 37321 or 37324 applies.

[a]—Previously used item number for UroLift—urethral/prostatic prosthesis (UPP); [b]—simple prostatectomy; [c]—transurethral needle ablation (TUNA) of the prostate; [d]—transurethral resection of the prostate (TURP); [e]—new item number, introduced March 2024, for UroLift procedures; [f]—new item number, introduced March 2024, for the REZUM system; [g]—photo-selective vaporisation of the prostate (PVP), e.g., green light laser prostatectomy; [h]—transurethral microwave thermotherapy (TUMT)/discontinued 1 March 2024; [i]—enucleation of the prostate via holmium laser enucleation of the prostate (HoLEP).

2.3. Data Analyses

Raw data for each individual item number were obtained from the latest Medicare statistics, stratified by month, state and age group. Population-adjusted rates for each item were calculated per 100,000 men, utilising data from the Australian Bureau of Statistics to account for population growth over time. Particular attention was given to the six-month period before and after 1 March 2024, corresponding to the introduction of UroLift and Rezum. Monthly incidence rates of individual BPO surgeries during these periods were analysed using independent *t*-tests to determine whether the introduction of these two surgical procedures significantly impacted surgical monthly incidence rates. Furthermore, individual BPO surgeries were categorised into cavitating and non-cavitating groups to assess age distribution trends over the past two decades in Australia.

2.4. Ethics

Ethics approval was not sought as the data collected for the purposes of this study were publicly accessible through Australian Government websites.

3. Results

3.1. Incidence of BPO Surgeries in Australia

Between January 2004 and September 2004, a total number of 301,648 BPH-related MBS item codes were claimed in Australia (Figure 1A). Among these, the majority of patients underwent TURP, which accounted for 78% (n = 235,422) of all procedures. This was followed by photo-selective vaporisation of the prostate (PVP) at 11% (n = 34,435), holmium laser enucleation of the prostate at 4% (n = 12,171), PUL at 4% (n = 11,655), TUNA at 1% (n = 3453), simple prostatectomy at 1% (n = 2969) and TUMT at <1% (n = 622). UroLift and Rezum, as more recently introduced procedures, constituted less than 1% of total claims (n = 527 and n = 395, respectively) The annual incidence rate of BPO surgeries in Australia remained relatively stable throughout the study period, with a gradual increase from 112.5 per 100,000 adult men in 2004 to 130.2 per 100,000 in 2023 (Figure 1B).

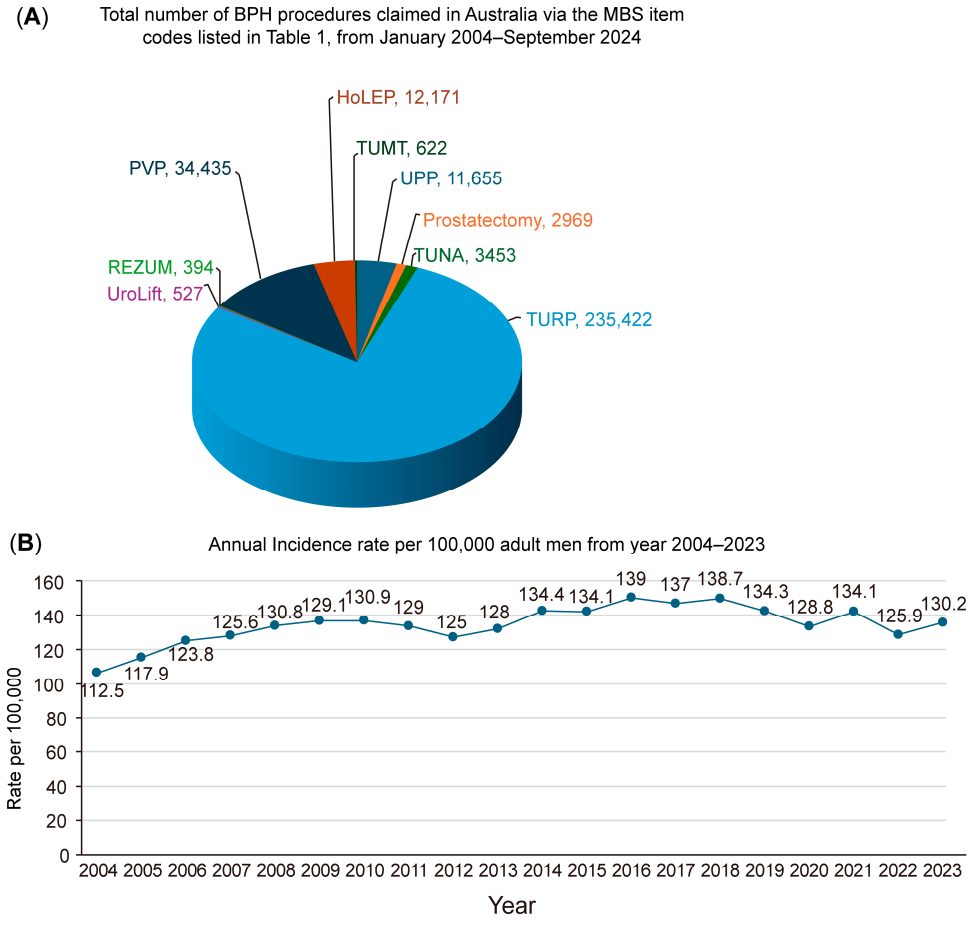

Figure 1. Annual numbers of BPO surgical procedures in Australia: 2004–2023. (**A**) Total number of BPH procedures claimed in Australia via the MBS item codes listed in Table 1 from January 2004 to September 2024. (**B**) Annual incidence rate per 100,000 adult men from 2004 to 2023.

3.2. Individualised Annual BPO Surgical Trends

The incidence of TURP services steadily declined from 2009, coinciding with the increased adoption of HoLEP and PVP (Figure 2). TURP procedures reached their highest incidence in 2009 at a rate of 123.4 per 100,000 men, followed by a steady decline to 89.3

per 100,000 in 2023 (based on 12 months of complete data). Holmium laser enucleation of the prostate (HoLEP) was introduced to the MBS item schedule in 2013 and experienced exponential growth in service uptake since its implementation. Similarly, the uptake of PVP began increasing rapidly in 2009, rising from 5 per 100,000 men to a peak of 26.2 per 100,000 men in 2014, before experiencing a decline after 2017. TUNA services saw rapid growth in 2018, with an incidence of 2.5 per 100,000 men, peaking at 4.7 per 100,000 men in 2021. In contrast, the incidence of simple prostatectomy remained stable from 2004 onwards, with a median incidence rate of 1.3 per 100,000 men (IQR = 0.5).

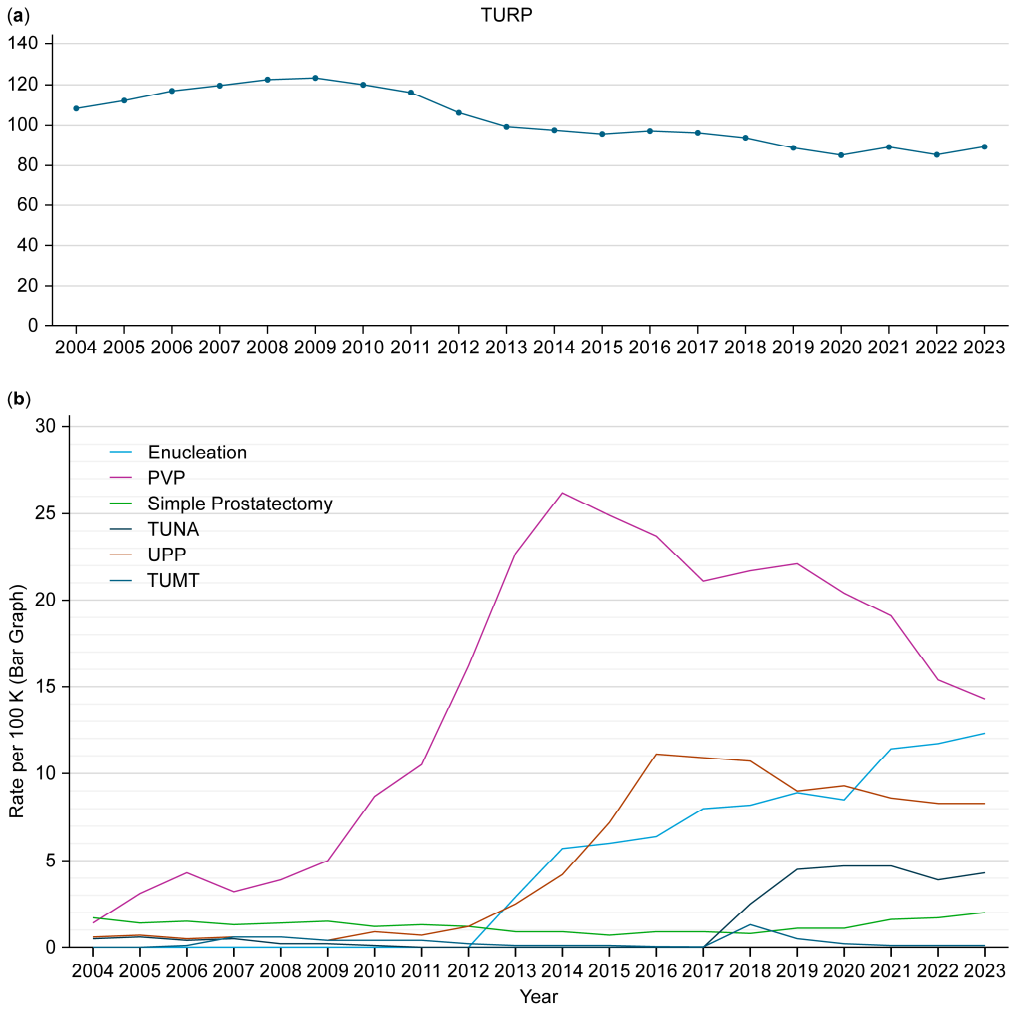

Figure 2. Annual trends for individual BPO surgical procedures: 2004–2023. (**a**) Annual incidence rate of TURP per 100,000 adult Australian men between 2004 and 2023. (**b**) Annual incidence rate of PVP, PUL, TUMT, TUNA, enucleation and simple prostatectomy per 100,000 adult Australian men between 2004 and 2023.

3.3. The Effect of Urolift and Rezum on BPO Surgical Trends

The MBS item numbers for UroLift and Rezum were introduced on 1 March 2024. Following their introduction, most procedures, with the exception of TUNA, demonstrated a steady increase in uptake (Figure 3). Incidence rates, reported as means with standard deviations, are summarised in Table 2. Notably, there was no significant difference in TURP incidence rates between the six months prior and the six months following the introduction of these item numbers ($t = -1.7$, $p = 0.06$), despite a higher incidence of TURP post-introduction ($M = 1057.5$, $SD = 76.1$) compared to pre-introduction ($M = 923.5$, $SD = 152.7$). Similarly, PVP incidence did not demonstrate a statistically significant change ($t = -1.1$, $p = 0.14$), although rates increased post-March 2024 ($M = 159.2$, $SD = 12.8$) relative

to pre-March 2024 (M = 142, SD = 35). In contrast, the incidence of HoLEP and simple prostatectomy significantly increased after March 2024 (t = −2.9, $p = 0.008$ and t = −2.1, $p = 0.027$, respectively). Conversely, TUNA usage significantly declined in the same period (t = 4.3, $p = 0.0008$). Moreover, PUL procedures experienced a significant decrease in incidence rates in the six months following March 2024 compared to the preceding six months (t = 8.6, $p < 0.001$).

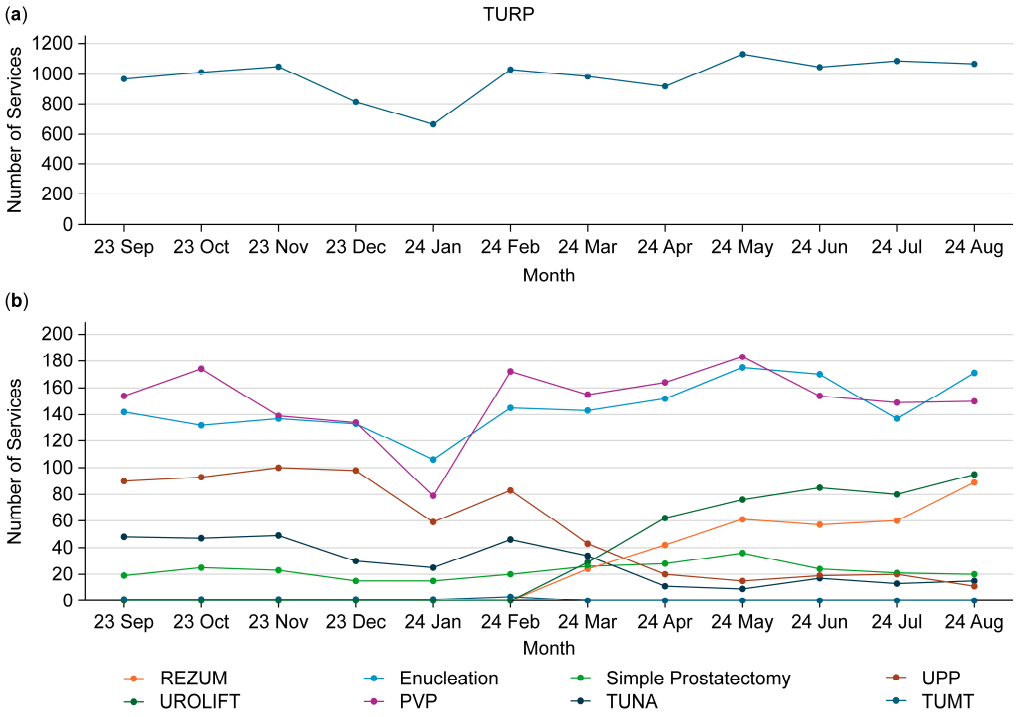

Figure 3. BPO surgery trends 6 months before and after the inclusion of UroLift and Rezum from 1 March 2024. (**a**) Incidence of TURP covering 1 September 2023–31 August 2024. (**b**) Incidence of Rezum, UroLift, enucleation, PVP, simple prostatectomy, TUNA, UPP and TUMT covering 1 September 2023–31 August 2024.

Table 2. Monthly incidence rates for BPH procedures 6 months before and after March 2024.

	6 Months < March 2024	**Median (Mdn), Interquartile Range (Q3–Q1)**	**6 Months > March 2024**	**Median, Interquartile Range (Q3–Q1)**	**T-Value and Significance Level ($p < 0.05$)**
TURP	923.5 ± 152.7	Mdn = 990.5 IQR = 258.5(1035.75–777.25)	1039.5 ± 76.1	Mdn = 1057.5 IQR = 129.5 (1098–968.5)	t-value = −1.7 $p = 0.06$
Enucleation (HoLEP)	132.5 ± 13.9	Mdn = 135 IQR = 17.25 (142.75–125.5)	158 ± 16.2	Mdn = 161 IQR = 30.5 (172–141.5)	**t-value = −2.9** **$p = 0.008$**
PVP	142 ± 35	Mdn = 146.5 IQR = 52.25 (172.5–120.25)	159.2 ± 12.8	Mdn = 154.5 IQR = 19 (168.75–149.75)	t-value = −1.1 $p = 0.14$
Prostatectomy	19.5 ± 4.1	Mdn = 19.5 IQR = 8.5 (23.5–15)	25.8 ± 5.8	Mdn = 25 IQR = 9.25 (30–20.75)	**t-value = −2.1** **$p = 0.027$**
TUNA	40.8 ± 10.5	Mdn = 46.5 IQR = 19.5 (48.25–28.75)	16.5 ± 9.0	Mdn = 14 IQR = 10.75 (21.25–10.5)	**t-value = 4.3** **$p = 0.0008$**
UPP	87.2 ± 15.1	Mdn = 91.5 IQR = 21.5 (98.5–77)	21.3 ± 11.2	Mdn = 19.5 IQR = 11.75 (25.75–14)	**t-value = 8.6** **$p < 0.001$**

The bold outlines the statistically significant results.

3.4. Age Distribution Between Cavitating and Non-Cavitating Surgical Procedures

For both cavitating (e.g., TURP, HoLEP and simple prostatectomy) and non-cavitating (e.g., UPP, TUNA, TUMT, PVP, UroLift and Rezum) BPO surgeries, the majority of procedures were performed on adult men aged 65–74 years (Figure 4A–C). Throughout the past decade for both cavitating and non-cavitating procedures, the number of services performed in men aged >85 years old significantly increased. Although only six months of data are currently available, a similar age distribution trend has been observed for UroLift and Rezum procedures to date (Figure 4C).

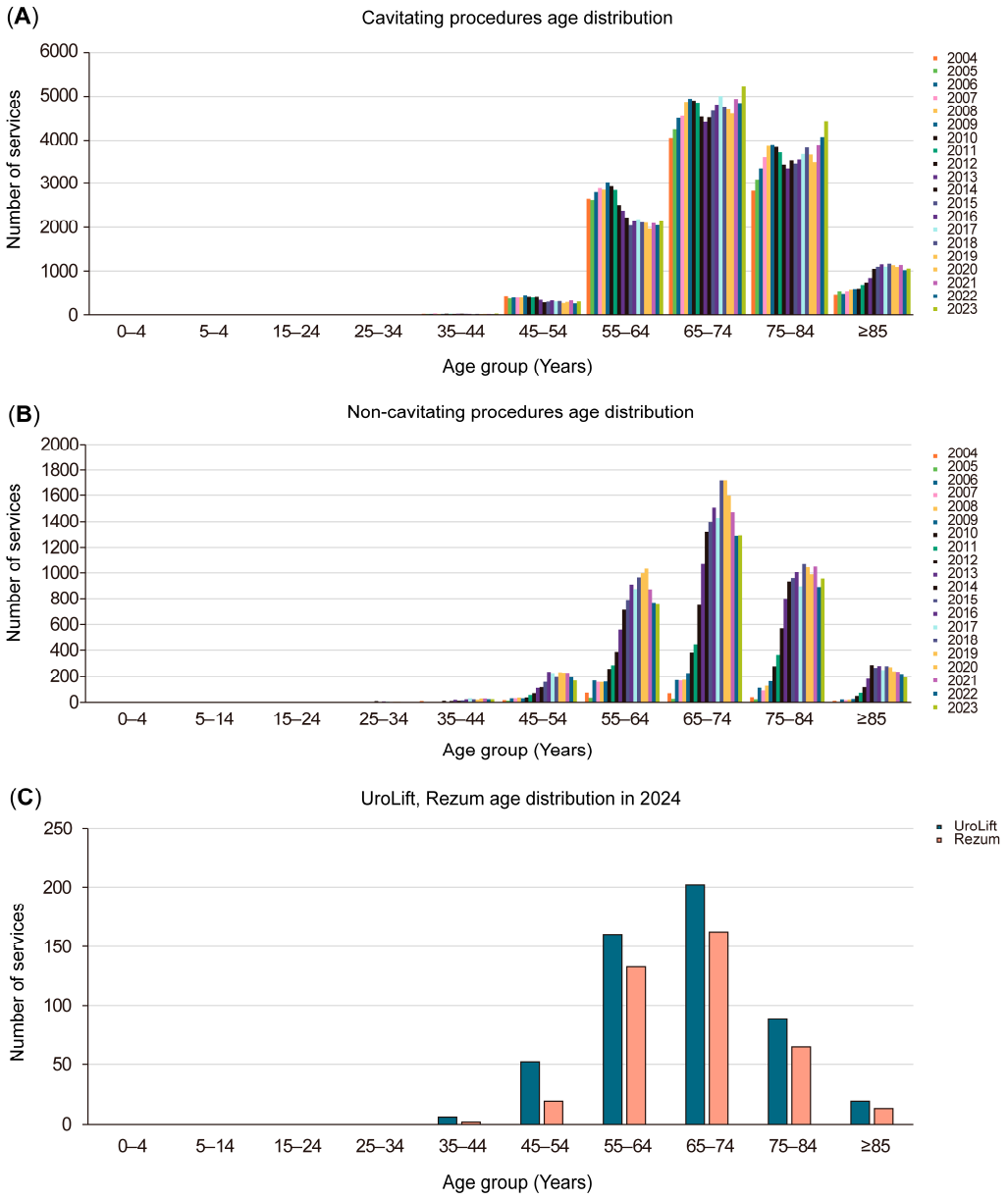

Figure 4. Age distribution trends of BPO surgeries performed in Australia 2004–2023. (**A**) Age distribution trend for cavitating procedures (TURP, enucleation, simple prostatectomy), 2004–2023. (**B**) Age distribution trend for non-cavitating procedures (UPP, TUMT, TUNA, PVP), 2004–2023. (**C**) Age distribution trend for UroLift and Rezum, 1 March 2024–30 September 2024.

4. Discussion

This study provides a comprehensive analysis of trends in BPO surgical interventions within the Australian population over the past two decades, highlighting key shifts in clinical practice. Of the 301,648 BPO surgical procedures claimed through the MBS item

schedule, TURP accounted for the majority (78%, n = 235,422), although its incidence has been declining since 2009. This aligns with the increasing adoption of newer MISTs, as well as HoLEP and PVP.

The introduction of UroLift and Rezum in the MBS schedule on March 1st, 2024, was associated with a significant reduction in inappropriate TUNA claims and a reduction in UPP claims (p = 0.0008, p = 0.0003, respectively). However, HoLEP and simple prostatectomy rates increased in the six months following their inclusion (p = 0.008 and p = 0.027, respectively), reflecting their distinct clinical indications. The highest surgical rates were observed among men aged 65–74 years, with a growing proportion of procedures performed on men ages >85 years over the past decade. Between 2004 and 2023, the overall incidence of BPO surgeries rose from 112.5 to 130.2 per 100,000 men. While the inclusion of UroLift and Rezum led to decreased claims for TUNA and UPP, the introduction of these procedures did not result in a reduction in the utilisation of other BPO surgical techniques in Australia.

Our findings align with global trends in BPO management, highlighting an increasing adoption of both MISTs and PVP alongside a decline in the use of conventional cavitating procedures such as TURP [10]. Although the global use of TURP has diminished slightly with the emergence of newer therapies, it continues to constitute the majority of BPO surgical procedures performed worldwide [11]. This is consistent with our study findings within the Australian context, where TURP remains central to the management of moderate-to-severe cases, particularly those where newer MISTs may be less effective. Systematic reviews support the role of MISTs from a risk-benefit perspective, despite their lower overall efficacy compared to TURP in achieving objective outcomes such as improvements in IPSS scores, QoL measures and maximum flow rates (Qmax) [12]. However, TURP has long been associated with significant risks, including bleeding, electrolyte imbalances and long-term complications such as retrograde ejaculation. These risks have prompted clinicians to continue to seek alternatives. In regions where access to advanced technologies necessary for MISTs is limited, TURP continues to play a pivotal role in BPO management. Thus, while the global prevalence of TURP is declining, its clinical relevance persists, particularly in resource-limited contexts.

The stability observed in simple prostatectomy rates aligns with the existing literature, which highlights its ongoing role in the treatment of patients with severe refractory BPO-related LUTS or exceptionally large prostate glands, where MISTs, HoLEP, PVP or TURP may be less effective [13]. The rapid adoption of Rezum and UroLift in the Australian Population over the last six months since following their inclusion in the MBS schedule is consistent with prior studies reporting a similar pattern of uptake. This is likely due to their minimally invasive nature and preservation of sexual function [14]. The subsequent rise in monthly incidence rates of enucleation procedures and simple prostatectomies is less easily explained but at the very least demonstrates the expiation of the BPO surgical marketplace. The addition of these cavitating procedures, alongside the conventional TURP, likely contributes to the increased number of BPO surgical procedures performed in men >85 years throughout the past decade, despite the overall decline in TURP incidence. Conversely, the decline in TUNA and UPP utilisation is consistent with reports indicating their reduced clinical relevance in the presence of more effective alternatives such as Rezum [15].

The observed trends have significant clinical implications. The increasing incidence of BPO surgeries underscores the need for healthcare systems to accommodate the growing demand, driven by an aging population and enhanced access to diagnosis and treatment [16]. The gradual decline in TURP utilisation, despite its proven efficacy, reflects a broader shift towards less invasive therapies that emphasise patient comfort, reduced perioperative

morbidity and shorter recovery times, many of which can be performed in day-surgery settings [17]. This decline may also be attributable in part to improved case selection for surgery. For instance, several randomised controlled trials (RCTs) demonstrate comparable clinical efficacy between HoLEP and TURP in terms of improvements in IPSS scores, quality of life questionnaires and maximum flow rates [18,19]. Furthermore, HoLEP demonstrated lower risks of hyponatraemia and blood transfusion requirements and lower urinary tract strictures compared to TURP in recent systematic reviews, but was associated with longer operating times and requirements for additional training [20]. Additionally, studies comparing HoLEP and simple prostatectomy reported equivalent outcomes in improvements with micturition, such as post-operative max flow rates and post-void residuals. This suggests that HoLEP may be a viable endourological alternative for larger prostate glands treated conventionally with simple prostatectomy [21]. Despite this, our analysis did not reveal a significant reduction in the incidence of simple prostatectomies over the past two decades, with rates remaining stable (Figure 2), particularly as the adoption of HoLEP increased. This suggests that simple prostatectomy continues to serve a critical role in the management of specific patient cohorts where other modalities may not be appropriate.

Alternatively, PVP utilises side-firing 532-nm lasers and is now often employed as an alternative to conventional TURP, particularly in anticoagulated patients. In Australia, the annual incidence rate of PVP has increased exponentially over the past two decades, peaking in 2014 at 26.2 per 100,000 adult men before tapering to 14.3 per 100,000 by the end of 2023. This rapid increase from an initial rate of 1.2 per 100,000 in 2004 is likely attributable to the rising prevalence of multimorbidity among Australian men over the past 20 years [22]. RCTs have demonstrated the advantages of PVP superiority with regards to reduced catheter duration and shorter hospital stays, with comparable postoperative outcomes to TURP in IPSS scores, maximum urinary flow rates and post-void residual volumes. However, PVP has been shown to have limitations, including longer mean operating times, higher rates of reoperation and reduced efficacy in treating prostate glands larger than 70 cc [23–25]. An additional limitation of PVP, along with other endoscopic laser prostatectomy techniques, is the lack of tissue diagnosis. While the incidence of TURP-detected prostate cancer has steady declined over the past 50 years and is often associated with favourable histological and clinical outcomes, the use of laser prostatectomies should not be discouraged in appropriately selected patients [26].

The recent introduction of two new item numbers for Rezum and UroLift in the treatment of BPO in Australia has been accompanied by a rapid uptake over the past six months. Both Rezum and UroLift offer several advantages for patients with BPO and are currently endorsed by the AUA guidelines for the management of prostate glands up to 80 cc [27]. Their inclusion in the MBS item schedule has facilitated improved renumeration for proceduralists and increased Medicare rebates for patients, thereby enhancing accessibility and affordability. Over the past 12 months, with the exception of TUNA and UPP, all other procedures for BPO management in Australia have experienced a notable increase in monthly incidence rates. Several factors may explain these trends, particularly in the case of TUNA. For example, proceduralists in Australia have previously used item number 37201 to claim reimbursement for Rezum procedures performed in the private sector, prior to its formal inclusion in the MBS schedule on 1 March 2024. This observation is significant given that MedTronic has discontinued marketing TUNA in Australia [28]. Furthermore, the decline in the use of UPP can be similarly explained by its prior use for claiming UroLift procedures before 1 March 2024. Additionally, while the true incidence rates of TUNA and UPP are challenging to quantify due to their inappropriate use for claiming Rezum and UroLift procedures, their declining use reflects a broader shift towards MISTs in BPO management. Both UroLift and Rezum therapies offer comparable improvements

in symptom relief (11–13 point reduction in IPSS scores) to TUNA and UPP, and have minimal impact on sexual function, aligning with key patient priorities [15]. Although there is limited evidence to compare retreatment rates for both UroLift and Rezum against TUNA in the same patient population, retreatment rates on the whole across several studies appear to be lower for UroLift and Rezum (8–12%) against TUNA (11–19%) [29–32]. These trends signify the expansion of the surgical market for BPO, driven by the introduction of these novel minimally invasive procedures and the increasingly diverse patient profiles presenting with BPO-related LUTS.

Several limitations were present in this study. Firstly, the reliance on MBS claims data excluded procedures performed within the public healthcare system or those privately funded without a claims submission, although such instances are relatively rare. Additionally, inaccuracies in item coding may have introduced distortions in the data. For example, the inappropriate use of item numbers to claim Rezum procedures prior to their formal inclusion in the MBS schedule is a notable limitation. This is particularly relevant for item numbers used for TUNA claims, which are restricted to men deemed unfit for TURP, with the exclusion of sexual dysfunction as a criterion for this classification. Additionally, UPP, while commonly used to claim UroLift procedures prior to 2024, is a generic item number also used for other types of urethral prostheses, including those for women. In this study, these discrepancies were identified and excluded when analysing UPP data. The dataset also lacked clinical details such as patient comorbidities, symptom severity and outcomes and did not consider re-operation rates. Furthermore, confounding factors such as changing patient demographics, including the evolvement of an aging, multimorbid patient population, and evolving clinical guidelines are difficult to isolate using claims data alone. However, this is somewhat mitigated when comparing Australian BPO surgical trends with worldwide trends, revealing certain similarities, as discussed above. These variables may significantly shape practice patterns and warrant further exploration.

Future research should focus on evaluating the long-term clinical outcomes of these newer MISTs within the BPO surgical marketplace, allowing for a clear delineation of their role amongst the varied clinical populations presenting with BPO-related obstruction. Additionally, comparative studies could focus on access to and equity in the utilisation of these procedures based on geographical analyses, and socioeconomic status could additionally explain the trends observed within this study. Based on our analyses, future trends in BPO surgeries in Australia will likely be shaped by ongoing technological advancements within the MISTs domain, with an emphasis on reducing recovery times and minimising procedural risks. UroLift and Rezum are expected to continue experiencing rapid adoption, particularly as long-term data regarding their efficacy is available. Additionally, as the aging of the population continues, the rise in demand for tailored and less invasive options for BPO surgical management is expected to grow, driving further refinements of currently available MISTs as well as other techniques such as HoLEP and PVP [10].

5. Conclusions

This study highlights the evolving landscape of BPO surgical management in Australia. While the annual number of BPO surgeries has risen since 2004, the use of TURP remains the most common; however, its use has steadily declined over the past two decades in the context of emerging MISTs, PVP, and enucleation procedures. Simple prostatectomy rates have remained stable, but the introduction of UroLift and Rezum MBS item numbers has notably reduced the use of TUNA and UPP. The future of BPO surgery in Australia is likely to be shaped by technological advancements in MISTs, with the continued adoption of UroLift and Rezum expected, particularly as the population ages. Additionally, UroLift and Rezum, with the exception of TUNA and UPP, did not cannibalise the rates of other BPO

surgical procedures, illustrating their role within the expanding BPO surgical marketplace in Australia.

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Informed Consent Statement: Not applicable.

Data Availability Statement: Data are publicly available.

Conflicts of Interest: The authors declare no conflicts of interest.

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