

Your Role in Female Pelvic Health

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Objectives

- Acknowledge the burdens of access to care in the U.S.
- Recognize the pelvic health care scope for the APP
- Review treatments of female pelvic complaints:
 - Incontinence
 - Recurrent Urinary Tract Infections (UTI)
 - Genitourinary Syndrome of Menopause (GSM)



Burdens



- Quality of Life
- Anxiety
- Depression
- Falls
- Fractures
- Dermatitis
- Cost
 - Community-dwelling
 - Institutionalized elderly individuals

(Coyne KSJ, Wein AJ, Tubaro A, Sexton CC, Thompson CL, Kopp ZS, Alwyer LP. 2009)


Workforce Shortage

- Two-thirds of shortage will be among physician specialties
- Urologists, urogynecology, gynecology
- Shortfall greatest in rural & nonmetropolitan communities
- Urban areas are preferred by new physicians
- Instructor shortage

(AUA, n.d.; Dombier, 2021; HS Inc., 2015; & Frye et al., 2015)

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APP Supported

Institute of Medicine (IOM)

- Full extent of training
- Expansion into specialty

American Urological Association (AUA)

- Endorses APPs
- APP on the year since 2020

American Urogynecologic Society (AUGS)

- Endorses APPs
- APP membership committee, conference, certification development

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(AUA, 2012; Hanno 2010; IOM, 2010; NGA, 2012; Cera et al., 2021)

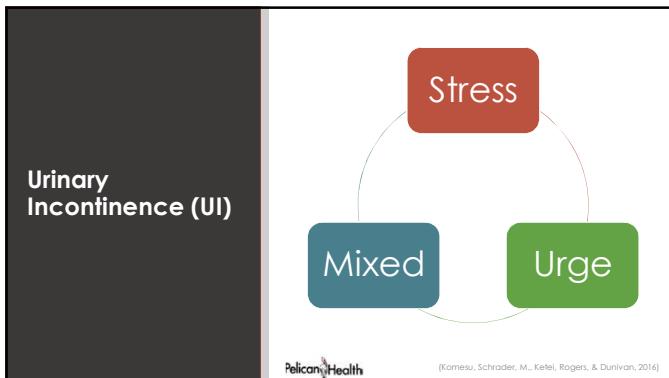
Frequent Female Pelvic Health Complaints

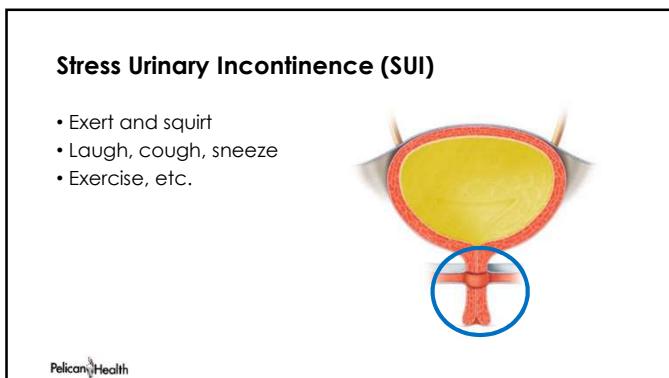
- Incontinence
 - >40% urinary incontinence
 - >17% bowel incontinence
- Recurrent UTIs
- Genitourinary Syndrome of Menopause (GSM)

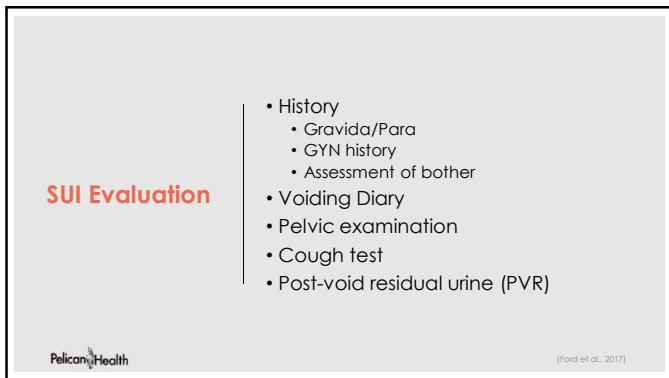
(Gorina, Schoppeit, Barcivitz A, et al., 2014; Pritch & Parsons, 2014; Sucksdorff, 2016.)

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Special Assessments

- Negative cough test
- Elevated PVR
- Pelvic organ prolapse
- Seeking definitive treatment



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Guideline Statements- Additional Testing

Cystoscopy?

Urodynamic testing?

Imaging?

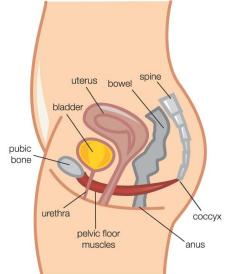
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SUI Treatment Options

- Pelvic muscle training
 - Biofeedback
 - Physical therapy
- Pessary
- Vaginal inserts
 - Impressa
 - Revive
- Containment
 - Menstrual vs Incontinence
 - Weight Loss
 - Surgery (sling)

Pessary

© Continence Foundation of Australia 2013
Image retrieved from Continence Foundation of America

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SUI Surgical Intervention

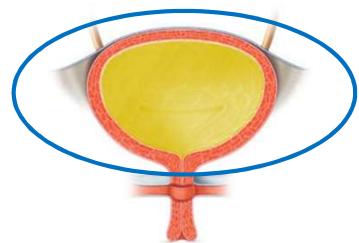
- Mid Urethral Sling (MUS)
- Transobturator Tension-free Vaginal Tape (TOTVT)
- Tension-free Vaginal Tape (TVT)
- Single Incision Sling (SIS)
- Autologous sling
- Urethral bulking



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Overactive Bladder (OAB)

- Urgency, frequency
- With or without leaking
- Chronic condition
- First, Second, & Third line therapies



(Gormley et al., 2014)

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OAB Work Up

- History
- Voiding Diary
- Pelvic exam
- PVR
- Urodynamics?
- Urinalysis?

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(Gormley et al., 2014)



OAB First-Line Treatments

- Behavioral
 - Bladder training
 - Fluid management
 - Dietary modifications
 - Bowel habits

Image retrieved from <http://www.webmd.com/urinary-incontinence-women/treatments-for-overactive-bladder>

(Reich, 2003)

Second-Line Treatments

- Medications:
 - Anti-cholinergic
 - β_3 -adrenergic agonist
- Common SE: dry eyes, dry mouth, constipation, cognition
- Use with caution:
 - Narrow-angle glaucoma
 - Impaired gastric emptying
 - History of urinary retention
 - Decline in cognition
 - Blood pressure changes
 - Frailty

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(Gormley et al., 2014)

Overactive Bladder (OAB) Medications

<p>Anticholinergic</p> <ul style="list-style-type: none"> • oxybutynin (Ditropan, Oxytrol) • tolterodine (Detrol) • solifenacina (VESIcare) • fesoterodine (Toviaz) • darifenacina (Enablex) • trospium (Sanctura) 	<p>Beta-3 adrenergic agonist</p> <ul style="list-style-type: none"> • mirabegron (Myrbetriq) • vibegron (Gemtesa)
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Med Considerations

- Transdermal oxybutynin-Oxytrol
 - not associated with cognitive changes
 - OTC-local pharmacy, Amazon, etc.
- ER over IR
- Inadequate management
 - dose modification
 - different anti-muscarinic medication
 - β3-adrenoceptor agonist
- Combination therapy
 - anti-muscarinic & β3
- Manage SE before abandoning therapy
- Have a pulse on med costs

(Kay et al., 2012; Lightner et al., 2019)

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Third-Line Treatments

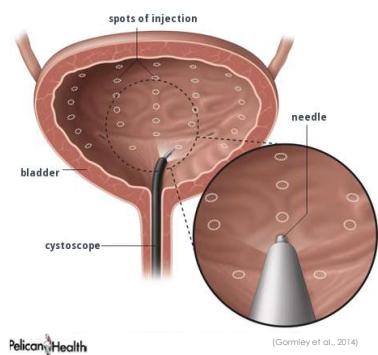
- Documented failed therapies
- Neuromodulation
 - Botox
 - Sacral Nerve Modulation (SNM)
 - Posterior Tibial Nerve Stimulation (PTNS)

(Gormley et al., 2014)

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Botox

- Clinic vs. OR
- Able and willing to return for post-void residual
- Able and willing to perform self-catheterization if necessary

*Sacral Neuromodulation*

- Willing to undergo surgical procedures
- MRI compatible
- 10+ year battery

**PTNS**

- Frequent appointments
- Minimally invasive
- Covered by Medicare and Medicaid
- Contraindicated with pacemakers



Recurrent UTIs

- Definition
 - Two or more occurrences within six months
 - Three or more UTIs within 12 months
- Risk factors
 - Spermicide use
 - New or multiple sex partners
 - Postmenopausal women

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Urine Culture

- Antibiotic stewardship
- Clean-catch urine sample
- Catheterized sample



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Prevention

- Drink 6-10 cups of fluid a day
- Wash the genital area with water only
- Prevent constipation
- D-mannose or cranberry tablets
- Theraworx topical OTC
- Methenamine (RX) or Cystex (OTC)
- **Vaginal estrogen**
 - Vaginal estrogen decreases UTI by 68%
- Low dose antibiotics (however, may become resistant)

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RUTI Take Aways

- Two or more symptoms?
- Pelvic examination
- Document positive urine cultures
- Test each symptomatic episode
- Cystoscopy/imaging not routine
- Asymptomatic Bacteriuria
 - do not check
 - do not treat (unless preop)
- Follow-up Evaluation
 - Test of cure urinalysis not recommended
 - Repeat urine cultures when symptomatic
- Non-Antibiotic Prophylaxis
 - Methenamine BID
- Antibiotic Prophylaxis
 - trimethoprim (TMP) 100mg PO daily
 - nitrofurantoin 50 mg PO daily
- Estrogen PV(Evidence Level: Grade B)

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Feels like a UTI...

- OAB?
- GSM?

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Genitourinary Syndrome of Menopause (GSM)

- GSM replaces term vulvovaginal atrophy (VVA)2013
 - Progressive disease 50-80%
 - Onset varies
 - Symptoms
 - Urgency
 - Dysuria
 - Dryness
 - Itching
 - Post-coital bleeding
 - GYN history
- Assessment
 - Decreased moisture
 - Decreased elasticity
 - Labia minora resorption
 - Decreased rugae
 - Tissue fragility/fissure
 - Urethral eversion
 - RUTI
 - Treatments: <6% are treated!
 - Peri care
 - Moisturizers PV
 - Estrogen PV
 - Vaginal lasers

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(Menopause, 2020)



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[Rubin, 2021]

Vaginal Estrogen Options

- Prescription only
- Regulated by the FDA
- Options:
 - Cream (estradiol, conjugated)
 - Tablets (Vagifem, YuvaFem)
 - Capsules (Imvexxy)
 - Estring (every 3 months)



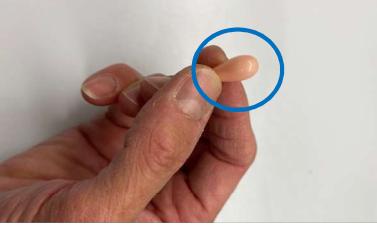
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Mislabeled Packaging?

- Not a systemic estrogen
- Association of breast cancer is 0
- Vaginal estrogen for 1 year = 1 pill of oral estrogen
- Do not need to be on progestin to protect uterine lining

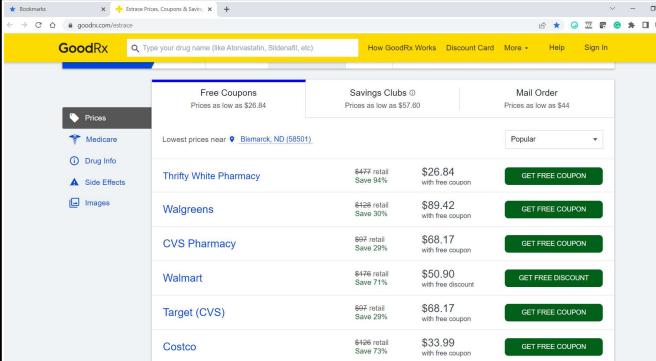
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[Crandall et.al., 2018]



Will not work if...

- Messy
- No refills
- Patient thinks you are trying to kill them!
- Expensive
 - Insurance
 - Compound
 - Mark Cuban
 - Goodrx



Pharmacy	Retail Price	Discounted Price	Action
Thrifty White Pharmacy	\$477 retail Save 94%	\$26.84 with free coupon	GET FREE COUPON
Walgreens	\$428 retail Save 30%	\$89.42 with free coupon	GET FREE COUPON
CVS Pharmacy	\$447 retail Save 29%	\$68.17 with free coupon	GET FREE COUPON
Walmart	\$446 retail Save 71%	\$50.90 with free discount	GET FREE DISCOUNT
Target (CVS)	\$697 retail Save 29%	\$68.17 with free coupon	GET FREE COUPON
Costco	\$199 retail Save 73%	\$33.99 with free coupon	GET FREE COUPON

Vaginal Estrogen How-To

- Make daily "skin" care plan
- Loading dose?
- Applicator?
- Peak effect
- Forever?
- Side effects
- Trouble shoot: goopy, irritation
- Follow Twitter Rachel S. Rubin MD @drachelrubin





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Summary



- Role of APP caring for pelvic health
- **Conservative, medicinal, & surgical**

<https://twitter.com/drachelrubin>

<https://www.goodrx.com/estrace>

<https://uberlube.com/>





The diagram shows Pelican Health's specialization in Pelvic & Bladder Health. It lists four services: URODYNAMICS LAB (red), PESSARY CLINIC (blue), PELVIC FLOOR ASSESSMENT (grey), and NEUROMODULATION (orange). At the bottom, it includes GSM MANAGEMENT and a QR code with the text "SCAN TO NOTIFY". Address: 2100 North 11th Street, Suite #1 | Bismarck | 701.751.2272 | pelicanhealth.com

References

- American Urological Association (2014). AUA consensus statement on advanced practice providers. Retrieved from <http://www.urologypracticejournal.com/article/52369>
- Anger, J., Lee, U., Ackerman, A. L., Choi, R., Chughital, B., Cremens, J. D., Hickling, D., Kapoor, A., Kenton, J. S., Kaufman, M. R., Rondanino, M. A., Stapleton, A., Stothers, L., et al. (2017). Clinical Practice Guideline for Uncomplicated Urinary Tract Infections in Women: AUA/CUA/SU Guidelines. *The Journal of Urology*, 202(2), 282-289. <https://doi.org/10.1097/JU.0000000000000296>
- Biomedical Research Institute. The Health Lab Mission. Retrieved from: <http://www.biobrinst.org/bladder-immunology-group>
- Baker, B. E., & Anger, J. T. (2022). Update to Recurrent Uncomplicated Urinary Tract Infections in Women: AUA/CUA/SU Guideline. *The Journal of Urology*, 208(4), 754-756. <https://doi.org/10.1097/JU.00000000000002888>
- Caro, J.L., Schafferhardt, M., Hull, A., & Quillard, S.A. (2021). Defining the role of the urogynecology nurse practitioner: a call to contemporary distinction through education and research. *Journal of Urogynecology*, 32(1), 11-16.
- Coyne KSJ, Wein AJ, Tubaro A, Sexton CC, Thompson CL, Koop ZS, Aley JP. (2009). The burden of lower urinary tract symptoms: evaluating the effect of LUTS on health-related quality of life, anxiety and depression. Epituisse, IJU International. 103 Suppl 3. 4-11. Retrieved from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2704979/>
- Crandall, C. J., Hovey, K. M., Andrews, C. A., Chlebowicz, R. T., Steinerick, M. L., Low, D. S., Shiffen, J., Chen, C., Kaunitz, A. M., Cauley, J. A., & Manson, J. E. (2018). Breast cancer risk in women with a history of uterine fibroids compared to women who used vaginal estrogen in the Women's Health Initiative Observational Study. *Menopause* (New York, N.Y.), 25(1), 11-20. <https://doi.org/10.1097/GME.0000000000000954>
- Davis, R., Jones, S., Barocca, D., Castle, E., Long, E., Leveillee, R., ... Weitzel, W. (2016). Diagnosis, Evaluation and Follow-up of Asymptomatic Microhematuria (AMH) in Adults. American Urological Association Education and Research, Inc. Retrieved from <http://www.auanet.org/-/media/assets/corp/aboutaua/2016/reviewed-and-accepted-papers/2016/04/2016-04-14-AMH.pdf>
- Dombier, R., & Gorzalczany, C. M. (2021). Workforce issues in Urology. *The Urologic clinics of North America*, 48(2), 161-171. <https://doi.org/10.1016/j.udpc.2020.09.001>
- Forde, J.C., Chughital, B., Cao, M., Stone, B.V., Te, A., & Bishop, T.F. (2017). Trends in ambulatory management of urinary incontinence in women in the United States. *Female Pelvic Medicine & Reconstructive Surgery*, 23(4), 250-253.
- Ford, J.P., Sodki, D., John, W. E., Jenkins, W. D., Dynis, D. I., Mueller, G.S., Alarie, S. R., McVary, K. T. (2015). Impact of county rurality and urologist density on Pelican Health.

References

- Gormley WA, Lighter DJ, Burgio KL, Choi TC, Clemens JQ, Culpin DJ, ... Yasavada SP. (2012). Diagnosis and treatment of overactive bladder (non-neurogenic) in adults: AUA/SU guideline. *The Journal of Urology* 188(3), 2435 - 2463.
- Gormley G, Schaeffer S, Berovitch A, et al. (2014). Prevalence of incontinence among older Americans. National Center for Health Statistics. Vital Health Stat 10, 1-11.
- Gupta K, Hooton T, Naber K, ... Soper D. (2011). International clinical practice guidelines for the treatment of acute uncomplicated cystitis and pyelonephritis in women by the Infectious Diseases Society of America and the European Society for Microbiology and Infection Diseases. CID 52. Retrieved from <http://www.caurier.org/guidelines/urinary-tract-infection>
- Hanno PM. (2010). Nurse practitioners, physician assistants will help alleviate urology work force shortage, according to AUA. *Urology Times*.
- Hooton TM. Recurrent urinary tract infection in women. *J Antimicrob Agents*. 2001;17(4):259-268.
- IRS. (2013). The National Health Workforce Demand Projection 2013 to 2025. Retrieved from www.census.gov/healthworkforce/reports/2013/nhp/physicianhortogednpprojection.html
- Kraus G, Shashik D, MacDiarmid S, McDevitt M, Doh N. (2012). Cognitive effect of oxybutynin chloride topical gel in older healthy subjects: a 1-week, randomized, double-blind, placebo-controlled study. *Journal of Clinical Pharmacy and Therapeutics* 37(2), 179-185.
- Kronz Schmidt Leibert, Schneiderwind, Mandroka Kunze, Wopereiser (2018). The 2017 update of the German clinical guideline on epidemiology, diagnostics, therapy, prevention, and management of uncomplicated urinary tract infections in adult patients. Part I: Therapy and prevention. *Urology International* 100(3):271-278.
- Kodner C, & Thomas E. (2010). Recurrent Urinary Tract Infections in Women: Diagnosis and Management. *American Family Physician* 82 (6) 638-644.
- Lighter DJ, Gormley A, Soule L, et al: Diagnosis and treatment of overactive bladder (non-neurogenic) in adults: AUA/SU Guideline amendment 2019. *J Urol* 202(3):710-716.
- Stone K. (2014). How does providers supply and regulation influence health care markets? Evidence from nurse practitioners and physician assistants. *Journal of Health Economics*, 33, 1-27.

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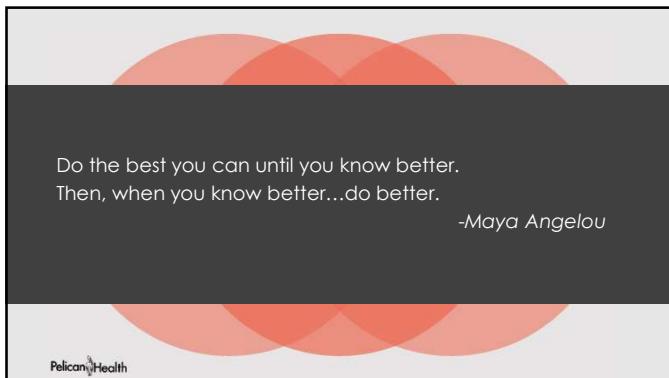
References

- Korpija L, McGehee B, Mekhora L, Koenig L, Rogers R, Gao J, Dunphy G, C. (2016). Epidemiology of female lower urinary tract symptoms in mid-aged/older women: results from the International Consultation on Incontinence Questionnaire-Short Form. *BJU International* 117(1), 73-77. <https://doi.org/10.1038/bju.2015.234>
- McVay, S. (2014). Management of benign Prostatic Hyperplasia. Retrieved from <http://www.aace.org/guidelines/benign-prostatic-hyperplasia> (2010-reviewed and validity-confirmed-2014)
- The NAMS 2010/2011 Position Statement on Genitourinary Syndrome of Menopause. (2010). The 2010 genitourinary syndrome of menopause position statement of the North American Menopause Society. *Menopause* 17(1), 97-109.
- National Governor's Association. (2012). The role of nurse practitioners in meeting increasing demand for primary care. Retrieved from <https://www.nga.org/cms/home/nga-center-for-health-care-reform/role-nurse-practitioners-meeting-increasing-demand-primary-care>
- Patel N, D., & Pande, A. (2014). Epidemiology and etiology of benign prostatic hyperplasia and bladder outlet obstruction. *Indian Journal of Urology* (IJU): Journal of the Urological Society of India
- Pankratz et al. (2017). The 2017 hormone therapy position statement of the North American Menopause Society. *Menopause: The Journal of the North American Menopause Society* 24 (7), 728-733.
- Patterson D, & Patterson S. (2014). Genitourinary syndrome of menopause: new terminology for vulvovaginal atrophy from the International Society for the Study of Women's Sexual Health (ISSWH). *Journal of Sex Medicine* 11(1), 10-14.
- Stoffel, J., Lighter, D., Petersen, A., Sandhu, J., Snyder, A., & Wei, J. (2014). Non-neurogenic chronic urinary retention: Consensus definition, management strategies, and future directions. *Journal of Urology* 192(3):730-736.
- Suklina, A. M., Stingo, C. S., Honley, J. M., Los, J., Sebold, C. M., & on behalf of the Urologic Diseases of America Project. J. Q. (2014). Incidence and management of uncomplicated recurrent urinary tract infections in women. *Journal of Urology* 192(3):730-736.
- US Census Bureau. (2014). An aging nation: the older population in the United States: Population estimates and projections. Washington DC: US Department of Commerce. Retrieved from: <http://www.census.gov/popest/2014pub/>

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- Blue
- White
- Gold
- Gray
- Pink
- Green
- New

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Alternative Treatments

Catheters

- Suprapubic verses transurethral
- Adverse risk/benefit balance
- Usually an inappropriate option

Surgery

- Augmentation cystoplasty
- Urinary diversion
- Last resort in selected patients

Containment

- Pads
- Disposable underwear
- Boosters

(Gormley et al., 2014)

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