Newsletter No.3 2012

Dear Colleagues,

I must admit it is hard to believe we are more than half way through the year!! I am gradually trying to build the services WHTA can offer and it is has been an exciting (albeit a bit exhausting) venture. I have really enjoyed getting to know more and more of you, and look forward to meeting those of you I haven't already met.

NOTE: The OPENING LETTER for each newsletter is removed for the web version as it is no longer relevant when read years later.

Taryn

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Clinical Focus Topic NOCTURIA

BACKGROUND INFORMATION

As we all know, nocturia *(needing to wake through the night to voi*d) is a common complaint of men and women around the world. The incidence of nocturia is known to increase with age, with 50% of adults waking more than twice per night by age 80. As well as the obvious sleep deprivation, tiredness, and associated decreased quality of life, nocturia also dramatically increases the risk of falls in our elderly.

Personally, I find that I have many patients who state *"I can cope with going frequently during the day; I just want to be able to sleep through the night".* So how do we treat this?? Well, the first step is to acknowledge that Nocturia isn't always simply due to high fluid intake, reduced bladder capacity or detrusor overactivity. In fact, Nocturia can often be a completely different mechanism to day frequency.

It is important to acknowledge that nocturia can often be a completely different entity to day frequency

RESEARCH ABSTRACT

Title: **Nocturia as a Manifestation of Systemic Disease**
Authors: **Gulur D, Meycha A and Drake M**
Journal: **British Journal of Urology, 2011. vol 107, no. 5, pp702-713**

Nocturia is commonly referred to urologists, but the mechanisms underlying the problem, together with the appropriate clinical assessment and management, may lie outside the ordinary scope of the specialty. Some serious conditions may manifest nocturia as an early feature, often as a consequence of nocturnal polyuria (NP). Voiding frequency is influenced by rate of urine output, reservoir capacity of the bladder, lower urinary tract (LUT) sensation and psychological response.

Polyuria can result from polydipsia (increased thirst) or endocrine (hormonal) dysfunction. NP can result from endogenous fluid and solute shifts, cardiovascular and autonomic disease, obstructive sleep apnoea, and chronic kidney disease. Nocturia without polyuria occurs in the presence of LUT pathology, pelvic masses and sleep disturbance.

Drug intake can contribute to, or counteract, each of these problems. In assessing nocturia, clinicians need to consider an undiagnosed serious condition that may manifest nocturia as an early feature, or suboptimal management of a known condition. The frequency-volume chart is a key tool in categorizing the basis of

nocturia, identifying those patients with global polyuria or NP, for whom involvement of other specialties is often necessary for assessment and management.

Treatment should be directed at the cause of the problem, with a view to improving long-term health and health-related quality of life. Simple steps should be undertaken by all patients, including improvement of the sleep environment and behaviour modification. Evaluation of treatment response requires objective data to corroborate subjective impressions. Some mechanisms of nocturia do not reliably improve with treatment, leading to refractory symptoms.

The concept of "NOCTURIA" as a 'SYMPTOM DIAGNOSIS'

In reality, most of our lower urinary tract "Diagnoses" are purely *symptom diagnoses*. ie they are not terms that give an indication of the pathophysiology underlying the symptom, they simply describe the symptoms themselves.

For example, even the *'diagnosis'* of stress incontinence by ICS/IUGA as 'the complaint of involuntary loss of urine on effort or physical exertion, or on sneezing or coughing' (Haylen et al 2010) is only a term that classifies the patient's incontinence based on symptoms. The definition gives no indication of the anatomical problem causing the incontinence. SUI can be due to fascial damage, pelvic floor muscle dysfunction, age related loss of urethral sphincter muscle fibres, sympathetic nerve damage preventing contraction of internal urethral sphincter during storage etc etc etc. It is for this reason, that in the area of SUI at least, it is now becoming common that stress incontinence be sub-classified into subtypes such as "Stress Incontinence with urethral hypermobility" versus "stress incontinence with intrinsic sphincter deficiency".

As with Stress Incontinence, the diagnosis that someone has "Nocturia" is really only a reflection of the **symptom** of having to wake through the night to void. It does not give any information as to the true underlying cause of their nocturnal voiding. Not everyone's nocturia is from the same cause. If we really want to effectively treat a person's nocturia we must first be certain of why it is happening in their particular case.

The Nocturia Subtypes - Determining the Cause of Nocturia

It is now generally accepted that there are <u>three very distinct sub-types of nocturia</u> that each need to be treated very differently.

1. <u>SUBTYPE ONE</u>: Nocturia due to Generalised Polyuria
2. <u>SUBTYPE TWO</u>: Nocturia due to Nocturnal Polyuria
3. <u>SUBTYPE THREE</u>: Nocturia due to Reduced Bladder Capacity

In this newsletter I would like to focus on Subtype 2 (Nocturnal Polyuria), but let's start with subtype 1.

1. Nocturia secondary to 24hour Polyuria >40mls urine prod per kg bodyweight

Polyuria refers to an overall excessive production of urine in 24hours, and is officially diagnosed if a person's urine production is more than 40mls per kg of bodyweight in 24hours.

ie 65kg person should produce no more than 2600mls of urine during a day and night

On average, a person will produce 30% of their urine 24hour output overnight. Obviously, having an overall increase in urine production (24hour polyuria) will result in a higher than normal night urine production. As a result, when assessing nocturia it is recommended to always start by **ruling out generalized polyuria**.

CALCULATING 24 HOUR URINE PRODUCTION:

TIME	Void Vol	
6.35am	**250mls (1st day)**	✖ Night Before
7.45am	**220mls (2nd day)**	Day Production
10.30am	**310mls (3rd day)**	
1.15pm	**180mls (4th day)**	
3.00pm	**260mls (5th day)**	
5.00pm	**330ml (6th day)**	
7.30pm	**140ml (7th day)**	
9.45pm	**220ml (8th day)**	
12.10am	**340mls (1st night)**	Night
3.30am	**320ml (2nd night)**	
6.35am	**310mls (1st day)**	
7.50am	**180mls**	
10.00am	**190mls**	
12.45pm	**210mls**	
1.20pm	**260mls**	✖ 2nd Day Production
3.40pm	**390mls**	
5.30pm	**250mls**	

Your patient completes a bladder diary for a day and a half. Important notes:

- She woke each day at **6.30am**.
- At night each day she went to sleep **10pm**.
- I have therefore highlighted her
  - **First am Voids** as **YELLOW.**
  - **Nocturia** voids **GREEN.**

When assessing for polyuria we need to calculate the urine produced through the day when awake and urine produced through the night when asleep.

NOTE The focus is on when the urine is produced not when it is voided.

- Calculation of Day urine production starts after the first AM void (because the first AM void is actually part of the urine produced over the prev night)
- Night urine production includes the nocturia voids AND the first AM void because all of that urine was produced overnight.

DAY URINE PRODUCTION = 220 + 310 + 180 + 260 + 330 + 140 +220 = **1660mls**
NIGHT URINE PRODUCTION = 340 + 320 + 31 = **970mls**
24HOUR URINE PRODUCTION = = **2630mls**

The above example has a 'reasonable' urine production level. Whilst it is possibly a little high for someone weighing 60kg (total should be 60 x 40 = 2400mls) it is not extremely excessive. All we would need to do for this person would be to simply reduce their fluid intake by 1-2 cups per day, particularly before bed.

However!!!!! If this person was producing 4.2L of urine, their polyuria would require further investigation.

A Note on Diabetes Insipidus

Often people think that polyuria is simply due to the 'person drinks too much'. Whilst this may be true (some people are just in the habit of drinking too much), there can also be much more serious causes of high thirst and high urine production. One such example is diabetes insipidus. Contrary to popular belief, diabetes insipidus is a *completely different condition* to Diabetes Mellitus, and has nothing to do with blood sugar levels.

I have included a brief summary on Diabetes Insipidus that I have taken from the US National Library of Medicine webpage:

Reference for Information Below: http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0001415/

DIABETES INSIPIDUS

"Diabetes insipidus is a condition that occurs when the kidneys are unable to conserve water during their functioning of filtering blood. The amount of water conserved by the kidneys (and therefore prevented from leaving the body as urine) is primarily controlled by antidiuretic hormone (ADH). ADH is commonly known as vasopressin, and is a hormone produced in the hypothalamus, then stored / released by the pituitary gland.

There are two types of Diabetes Insipidus (DI):

- *Central* — *DI caused by a lack of ADH production in the hypothalamus (ie brain problem)*
- *Nephrogenic:* — *DI caused by a failure of the kidneys to respond to ADH (kidney problem)*

Central diabetes insipidus can be caused by damage to the hypothalamus or pituitary gland as a result of head injury, infection, loss of blood supply to the gland, surgery or tumors. There is also a form of central diabetes insipidus that runs in families.

Nephrogenic DI involves a defect in the parts of the kidneys that reabsorb water back into the bloodstream. It may occur as an inherited disorder, or by certain drugs (such as lithium, amphotericin B, and demeclocycline), high levels of calcium in the body (hypercalcemia) and kidney disease (such as polycystic kidney disease)

Symptoms

- *Excessive thirst - may be intense or uncontrollable, may involve a craving for ice water*
- *Excessive urine production*

Treatment

Central diabetes insipidus may be controlled with vasopressin (desmopressin, DDAVP), taken as either a nasal spray or tablets.

If nephrogenic DI is caused by medication (for example lithium), stopping the medication may help restore normal kidney function. However, after many years of lithium use the nephrogenic DI may be permanent.

Ultimately, hereditary nephrogenic DI and lithium-induced nephrogenic DI are managed by drinking enough fluids to match urine output.

A PAST PATIENT OF MINE….

I can distinctly remember a patient I had about 6-7 years ago. She presented with a very flat, unemotional affect. On taking her history she explained that she had very severe bipolar that was controlled by Lithium, but that there were two main side effects. First was that the high dose of lithium meant that she didn't really outwardly demonstrate any emotion, and second was that she was continuously thirsty. She explained that there was no way for her to drink less fluid whilst on lithium (she drank 5.5L per day and had urine output of about the same), and going off lithium was not an option because of her bipolar.

What was interesting was how realistic she was. I can still remember her saying to me….. "I know that you are not going to be able to reduce how often I need to pass urine, I would just like to be able to not wet myself".

This patient did have a nocturia of 4 voids per night (about every 1.5hours), but we didn't even try to change it. She had a nephrogenic diabetes insipidus as a side effect from her lithium and her bladder capacity was fine. Every volume was about 400mls. What we did try to change was the degree of urgency she felt at 400mls, and her ability to control her urine when she was woken at night and was trying to get to the toilet. We did standard pelvic floor strengthening, urge suppression strategies etc etc.

However….. there are causes for Nocturia that aren't related to an excessively high 24hour urine production….

2 Nocturia due to Nocturnal Polyuria - >33% of 24hr Urine Production at Night

Nocturnal polyuria is not related to the kidneys producing too much urine overall, rather, the problem is simply with 'when' in the day the kidneys are producing it. Whilst some people may have a normal 24hour urine production overall, they may produce a disproportionately large percentage of urine during sleeping hours. This is referred to as **NOCTURNAL POLYURIA and is estimated to be the cause of 70% of patients with nocturia.**

CLINICAL NOTE

The first step in assessing nocturia is screening for systemic polyuria.

However…

After ruling out generalised polyuria (by calculating total urine production in 24hours), the next step should always be to calculate whether the ratio of day: night urine production is abnormal.

To determine whether a person has specific nocturnal polyuria we simply work out the nocturnal urine production as a percentage of the total 24hour hour urine production. The value should always be less than 33%.

Note - The body is naturally meant to increase arginine vasopressin (ADH) production overnight so as to reduce urine production. Young adults tend to have a very efficient ADH release meaning they often produce 20% or less of their 24hour urine production overnight. With age however, it is known that this circadian ADH production often reduces resulting in higher and higher volumes being produced. With that said, the nocturnal urine production should still never exceed 33% even in older adults.

TIME	Void Vol	
6.35am	**250mls (1st day)**	✖
7.45am	**220mls (2nd day)**	Day Production
10.30am	**310mls (3rd day)**	
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24HOUR URINE PRODUCTION = = **2630mls**

Remember:
NIGHT URINE PRODUCTION includes the nocturia volumes and the first AM volume as the urine was produced overnight.

Nocturnal Polyuria Index:
Calculation of the percentage of urine production that occurred overnight.

Noct urine production / Total 24hour urine production x 100

970mls / 2630mls = 36%

CAUSES OF NOCTURAL POLYURIA

1. High Evening Fluid Intake
   The most obvious cause of nocturnal polyuria is an excessively high fluid intake in the 2-3 hours before bed. In this situation the easy solution is to start limiting fluid intake after a certain time. However, there are other causes as well.

2. Evening Diuretic Medications
   Some medications (eg some antihypertensives) are designed to increase urine output. Many older adults take these medications before going to bed, dramatically increasing their urine production rate over night. Encouraging patients to discuss with their GP about whether they can change the timing of the medications can be a simple way to reduce *nocturia if nocturnal polyuria is the problem*.

3. Lower Limb Fluid Pooling
   Poor venous return can result in venous congestion and lower limb fluid pooling during the day. On reclining in bed at night the backflow of fluid to the kidneys can result in a sudden increase in urine production. Simple management can to simply raise feet for an hour or two before bed (eg whilst watching TV) and regularly perform ankle exercises. In more extreme circumstance, prescribing properly fitted compression stockings (eg JOBST 20-30mmHg) for patients to wear during the day to prevent the LL pooling can dramatically reduce nocturnal urine production.

4. Sleep Apnea
   This is probably the most under-recognised cause of nocturia. The Atria of the heart have the ability to release a hormone called "Atrial Natriuretic Peptide". This hormone is released if the heart picks up an abnormally high blood pressure. Basically, ANP reduces blood pressure by acting on the kidneys to increase diuresis . Increasing diuresis means that more fluid from the blood is drawn across the membranes in the nephron and turned into urine, which reduces blood volume and ultimately reduces blood pressure.

   So what happens in Sleep Apnea?
   During episodes of obstructive sleep apnea the person attempts to inspire on a closed glottis.

   - Attempted inspiration with a closed glottis → increased intrathoracic Pressure
   - Increased pressure is sensed by baroreceptors in the atria and incorrectly interpreted as pressure from increase in blood pressure or possible pulmonary oedema.
   - The atria respond by releasing ANP so as to increase water excretion and reduce blood pressure / pulmonary oedema.
   - This ultimately results in an increased urine production purely at night during sleep , but not during the day in waking hours when the apnea episodes aren't occurring.

   I have included some research abstracts for you on the following page…..

Title **Obstructive Sleep Apnea, Nocturia and Polyuria in Older Adults**
Authors Umlauf M, Chasens E, Greevy R, Arnold J, Burgio K and Phillion D
Journal Sleep, 2004 vol 27, no. 1, pp139-144

Thirty community-dwelling elders with a mean age=65.5, SD=8.4years and symptoms of nocturia and sleep disordered breathing, volunteered to participate.

Measurements:

1. Urine and blood specimens were analyzed for ANP and AVP content.
2. Apnea: defined as a decrease in airflow of ε 90% for a minimum of 10 seconds.
3. Hypopnea: defined as 30% decrease in airflow and at least 3% decrease in SaO2 for a minimum of 10 sec.
4. AHI: apnea-hypopnia index = the sum of apneas + hypopneas divided by hours of sleep.

Results:

The study found that 20/30 subjects who reported both nocturia and sleep disordered breathing had clinically diagnosable Obstructive Sleep Apnea on testing.

The study also found that whilst there was no correlation with Arginine Vasopressin, there was a strong correlation between a high apnea-hypopnia index, night-time urine production and Atrial Natriuretic Peptide excretion

Conclusion: In subjects with elevated AHI (>15), night time urine production and ANP excretion are elevated.

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Title **Continuous Positive Airway Presure Reduces nocturia in patients with obstructive sleep apnea**
Authors Margel D, Shochat T, Getzler O, Livne P and Pillar G
Journal Urology, 2006 vol 67, no. 5, 974-977

To examine whether treatment with continuous positive airway pressure (CPAP) reduces nocturia in patients with obstructive sleep apnea (OSA).

Methods
This prospective clinical study recruited patients referred to the Rambam Sleep Laboratory with suspected OSA. Only those with confirmed OSA after testing remained in the study and were treated with CPAP

Nocturia was assessed at four time points:
- Baseline (1 week at home before testing at laboratory)
- Diagnostic night in the laboratory;
- After 1 to 3 months of stable CPAP treatment at home

RESULTS:

- 97 patients completed the study
  - Mean age of 55 +/- 12 years,
  - BMI 33 +/- 7 kg/m2
  - Respiratory disturbance index was 34 +/- 24/hr

- 73/97 patients reported improvements in nocturia with CPAP

- Nocturia episodes were

  - At home before CPAP: 2.5 +/- 2.4 times/night;
  - With CPAP 0.7 +/- 0.6 time/night ($P < 0.001$).

CONCLUSIONS:
CPAP appears to be an effective treatment for nocturia associated with OSA.

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A REVIEW – available free on pubmed http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1893114/?tool=pubmed

Title	**Continuous Positive Airway Pressure Treatment for sleep apnea in older adults**
Authors	Weaver and Chasens
Journal	Sleep Medicine Review, 2007 vol 1, no. 2, 99-111

Daytime sleepiness and sleep disordered breathing are increased in older compared to middle-aged adults. The cognitive and cardiovascular sequelae associated with obstructive sleep apnea (OSA) have significant implications for the older adult who may already be suffering from chronic illness. Most of the evidence supporting the utilization of continuous positive airway pressure (CPAP) for the treatment of OSA has been generated from studies employing samples consisting predominately of middle-aged adults. To examine the efficacy of CPAP for the treatment of obstructive sleep apnea in older adults with an emphasis on adherence and related treatment outcomes, this paper reviews findings from clinical trials including older individuals as well as those specifically targeting this population.

These studies have demonstrated that **following CPAP therapy, older adults have** increased alertness, improved neurobehavioral outcomes in cognitive processing, memory, and executive function, **decreased sleep disruption from nocturia** and a positive effect on factors affecting cardiac function, including vascular resistance, platelet coaguability and other aspects of cardiovascular health.

Following CPAP therapy, older adults had decreased sleep dysfunction from nocturia

Physiological differences in respiratory structure and function between younger and older adults of similar disease severity are believed to result in older individuals requiring titration at lower CPAP levels. Once initiated, CPAP treatment is tolerated by older adults, including those with Alzheimer's disease. Patterns of adherence in older individuals are consistent with that of middle-aged adults.

TARYN'S FINAL SUMMARY re Nocturia - Clinical Implications

There are so many different lower urinary tract symptoms that we regularly attempt to treat. Often, many of the symptoms appear at first glance to all related. Personally, I tend to find this is the trap many people fall into when trying to improve a person's symptoms of day and night urinary frequency.

It is tempting to think that when a person presents with a day frequency of 14 / day and a night frequency of 4 / night that the cause behind the symptoms is probably linked……an in reality, often it is.

If a person has reduced bladder capacity, increased bladder sensation, or a high post-void residual then this is likely to impact on both their day and night frequency. In attempting to improve these factors it can be easy to forget that there can be additional factors coming into play with their nocturnal frequency. I believe the most overlooked of these is the relationship with sleep apnea.

Whilst I don't tend to do much paediatrics I do remember reading some studies that showed even in children, removal of adenoids or tonsils that were impacting on breathing during sleep had a dramatic effect on nocturia and nocturnal enuresis. The difficult part is probably explaining to parents why they should consider a specialist consult for removal of their tonsils to stop them wetting the bed!!

Anyway….. the point of all of this was the more accurate diagnosis of nocturia.

My suggestion for Patients with Nocturia:

STEP ONE: **Get them to do an accurate bladder diary**

STEP TWO: **Check the 24hour urine production**

If the person has an abnormally high urine production or reports abnormally high thirst that is not explained by medications make sure they have had a medical review first for conditions such as diabetes insipidus.

If they are on drugs giving a nephrogenic diabetes insipidus be realistic to how much you are going to improve both their day frequency and nocturia.

STEP THREE: **If their 24hour urine production looks normal calculate what percentage is being produced overnight (night production) / (24hour production) x 100**

If their NPI is >33% consider a sleep apnea assessment, strategies to reduce lower limb pooling, discussion with GP regarding any pre-bed medications, reducing fluid intake before bed

STEP FOUR if you have ruled out polyuria and nocturnal polyuria causes, it is likely they have reduced bladder capacity / increased bladder sensation so go to your usual OAB treatments.

New Section!! Handy Tips in the Clinic

One of the common comments in courses is that people often really like the practical pieces of advice that can be used when trying to simply assess and treat patients day to day.

This page in the newsletter is therefore just going to be a few tips from me each month on things I find useful to know.

TIP #1: Draw probe out a little if getting LL External Rotation when doing vaginal stimulation

One of the things I have found (particularly with my women who have a major levator avulsion) is that sometimes when I perform vaginal electrical stimulation to facilitate Pelvic Floor muscle contraction I get lower limb external rotation on one side. The vaginal probe (especially in women with avulsion) seems to activate obturator internus causing the LL external rotation. I tend to find that if I draw the probe out a little this often goes away.

TIP #2: Make sure people perform a continuous valsalva for at least 6sec when assessing prolapse

I used to mainly get people to 'cough' when assessing for prolapse. Then the research came out by the Dietz group showing that in supine prolapse won't reach full descent until someone has sustained a valsalva for at least 6-8seconds. To get a true idea of the baseline degree of prolapse make sure you get the patient to sustain the "bearing down" pressure long enough.

TIP #3: Speak with confidence regarding fees for equipment and number of sessions needed.

I regularly find that when I speak to physiotherapists at course or over the phone about seeing pelvic floor pain patients 2/week for 6-12 weeks or using biofeedback probes (like peritron probes) I always get a really half hearted response with physios indicating *"I can't ask my patients to spend that much".*

My answer……. ***"WHY NOT!!!!"***

- ➔ If you go to the doctor and they say "I'm not sure if there is a problem but to make sure we need to do an MRI to check" you trust them and get it done, no questions asked….. and you aren't even getting any treatment, it's just an assessment that will probably cost $400
- ➔ If a doctor says to a patient you need to be on medication for the next 5 years and the medications are $70 per month people pay it.
- ➔ Patients go to chiropractors who speak with absolute confidence and say "you have a spine that is out of alignment and you will need to see me every fortnight for an adjustment".

Imagine if a doctor said to you….. "*The research shows that for the medication to be effective you need to take the antibiotic twice per day for 2 weeks. However, I hate asking you to buy that much, so just take it once every two days, it probably won't work but at least you won't pay as much"*

Ok. Now I know I'm being a bit silly, but I think this is what we do a lot of the time as physios. When we see people regularly for follow up they progress their exercise programs better and then they do get better. When they have some form of feedback they can goal set better. The research shows that people with incontinence improve much more if they have contact with a physio at least 2 / month (ie every fortnight). When people have pain and overactivity they won't sustain the improvement if I only see them once every 3 weeks!

Isn't it better to see them regularly and actually get them better, rather than seeing them only a sporadically and them not get better at all??

It was a hard switch for me going from public to private practice. But what I have gradually realized is that people don't care paying if they believe they are going to get better. But for them to believe this is worth it you need to state the treatment plan with confidence.

The reality is that what we do works. Our skills are a valuable commodity and we spent years developing them at extraordinatey cost. No other profession devalues themselves as much as we do. My suggestion is learn to talk with absolute confidence in your skill and your profession. Have confidence in stating what they need. Don't try to cut corners to save them money – all that will happen is that they pay half the fee and don't get better, which means they will be even more unhappy.

Therefore ……. The Speech:

> *"From assessing you I can tell you that you have a condition called _____(condition). It is caused by_____. Realistically, for this to improve you probably will need about _____sessions of physio per _____(week, fortnight) over 8-12 weeks. We will need to do _____ (eg electrical stimulation / biofeedback retraining and assessments etc etc) during the sessions and I will also be giving you some things you will need to do at home between sessions. However, you should feel a dramatic improvement. For the within session appointments we need to monitor your pelvic floor with a _____ (peritron probe, EMG electrode etc etc) which involves a once off cost of _____ (Price). To get things started, today we need to……*

Product Review – Lubricating Jelly

People regularly ask me about lubricants to use in the clinic. There is no doubt that there are a huge range of different lubricants on the market, all with different ingredients and all with different properties.

Decision One: Bottle or Sachet??

Personally, I always use sachets in the clinic. I do have a lot of pain patients who also have co-existing anxiety disorders or OCD, and they tend to be quite nervous about infection control. Using single use sachets means that I have one less issue to reassure them about. In reality though, as long as your infection control practices are good, there is no reason why you can't use a bottle. You can always press the pump down with you forearm and obviously don't touch the nozzle with your gloved hand if you have already touched the patient.

Decision Two: Which Lubricant??

There are two main considerations I have when choosing a lubricant.

- First…. Is there anything in it that people are likely to react to?
- Second…. How long does it last before drying out?

Reactions

SYLK - 1 bottle = $18 (via website P&H included)

A really popular choice for lubricants is Sylk. It is water based, and uses grapefruit seed and kiwifruit vine extract. The company promotes it on the basis that it is "Natural" – with no petrochemicals such as parabens or propylene glycol. Having no alcohols it doesn't dry out as quickly as some other lubricants. It is a great option for people who tend to react to most other lubricants.

The company is very helpful in sending sample sachets to health professionals to give to patients to try.

The one downside is that sachets are commercially available to have in stock. You need to buy a bottle. However, you can get your patient to buy their own small bottle to bring to each appointment.

Sachet Options

There are two sachet options that you commonly find around…….

1 PDI 2.7g Lubricating Sachet box of 100 sachets = $20.50 (20c each) from Medione

This is the sachet that I always had when I worked in the public hospital system. I must admit that I never used to mind it, but that is because I don't think I had tried anything else and so didn't know any different. My problem with this lubricant is that I find it's not particularly lubricating (it has a high alcohol content and a very thick texture) and it DRIES OUT SO QUICKLY. If I am doing pelvic floor pain / release work I find I have to stop every couple of minutes to get more lube.

Therefore, I must admit…. *I only use this if I run out of comfigel* (shown below) and I have no other option. I suppose after this review you probably aren't inclined to buy it, but it is good to have a second option if comfigel goes out of supply.

Supplier
http://www.medione.com.au/lubriating-gels/lubricating-jelly-2-7g-sachets-sterile-t00128-box-of-144.html

2 COMFIGEL - box of 100 5g sachets = $19.80 (20c each) from Australian Medical Supplies

MY FAVOURITE LUBRICANT IN THE CLINIC

Ok…. So this is my current personal favourite. I had real trouble finding the actual ingredients for comfigel on their website, so I emailed the supplier and they got back to me within an hour or so with all the listings. It has a surprisingly small ingredients list compared to many.

• Hydoxyl Ethyl Cellulose	1.0-3.0	Solvent
• Natural Glycerin	10.0-25.0	Wetting Agent
• Citric Acid	0.01-0.1	Ph
• Propyl Paraben	0.05 – 0.2	Preservative
• Methyl Paraben	0.05 – 0.2	Preservative
• Deionized Water	remainining	Solvent

It comes in sachet boxes of 100, it has a really low alcohol content, it has a really slippery thin texture, and it lasts for ages. I can put comfigel on my fingers and perform 10-15min of internal release work with sweeping massage and rarely have to get a second amount of lubricant. This is so important for pain patients who find the actual insertion and removal of examiners fingers so painful.

One of the supplier in Australia is Australian Medical Supplies:
http://www.ausmedsupply.com.au/showProduct/Gels/Lubricating+Gel/GC5S/ComfiGel+5g+sachets

Copy of Tweets at WHTA_Physio

Please find below the WHTA Research tweets listed in the two months since the last newsletter. Previous research tweets can be found either on the twitter home page of in previous newsletters.

ANATOMY

Yavagul et al 2012 – Nice FREE FULL TEXT Article. Whilst this article is not great on the fascia, it is a nice simple English paper that would be great for students.
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3312145/?tool=pubmed

PELVIC FLOOR PAIN

Damphousse et al 2012 Proctalgia fugax may have link with pudendal neuropathy / denervation of superficial pelvic floor http://www.ncbi.nlm.nih.gov/pubmed/22516784

Fitzgerald et al 2012 Randomised multi-centre trial finds that PF Myofascial therapy is effective in treatment of patients with Interstitial Cystitis / Bladder Pain Syndrome. http://www.jurology.com/article/S0022-5347(12)00259-5/abstract

Wang et al 2012 31% of patients presenting to a US Physical Therapy clinic for pelvic floor dysfunction have a combination of urinary dysfunction, bowel dysfunction and pain disorders.
http://www.ncbi.nlm.nih.gov/pubmed/22539228

PELVIC FLOOR ASSESSMENT

Aran et al 2012 Higher Pelvic floor strength (especially a maximum squeeze pressure of >59cmH20) may be a predictor of failed induction of labour. http://www.springerlink.com/content/3111686241021951/

Abraham et al 2012 Pelvic Floor dyssynergia predicts abdominal distension / bloating in eating disorders patients. http://informahealthcare.com/doi/abs/10.3109/00365521.2012.661762

Shek et al 2012 Levator Hiatal area and urethral mobility found to be 27% and 64% increased at rest in late 3rd trimester. http://www.springerlink.com/content/cr338w142k7n1480/

PELVIC FLOOR MUSCLE TRAINING

Da Roza et al 2012 8/52 of PFMT improves vaginal rest pressure, maximum voluntary contraction , incontinence and frequency in nulliparous sport students
http://www.springerlink.com/content/g556101461505428/

PELVIC ORGAN PROLAPSE

Lammers et al 2012 FULL TEXT Systematic Review confirms strong association between levator avulsion and both initial pelvic organ prolapse and recurrence of pelvic organ prolapse post surgery.
http://www.springerlink.com/content/j42r30734561685u/fulltext.pdf

BOWEL DYSFUNCTION

FULL TEXT – Bove et al 2012 Consensus statement on diagnosis of chronic constipation and obstructed defecation http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3325520/

Selcuk et al 2012 30.9% of patients with urinary incontinence who deny anal incontinence are found to be symptomatic of double incontinence. http://www.springerlink.com/content/u527303h55k77341/

Espuna-pons et al 2012 8.6% of nullips are found to have double incontinence during pregnancy, but many improve postpartum
http://onlinelibrary.wiley.com/doi/10.1002/nau.22249/abstract;jsessionid=00BE2DAE53A69928A3B3F113FA40AF8B.d03t03

Espuna-Pons et al 2012 Instrumental delivery (forceps and vacuum) more than doubles the risk of double incontinence (urinary and anal) postpartum.
http://onlinelibrary.wiley.com/doi/10.1002/nau.22249/abstract;jsessionid=00BE2DAE53A69928A3B3F113FA40AF8B.d03t03

Final Note from Taryn

Anyway…. That is about it for now. There will be another newsletter quite soon as this was quite delayed in getting to you all.

I hope you are all well……. And please remember…… I would really appreciate an SMS reminder if I haven't returned your email or call within 24hours-48hours.

Taryn