### Managing patients on ADT

Netty Kinsella Uro-Oncology Nurse Consultant

The Royal Marsden Hospital, London

### Assesment: Establishing a baseline

- Baseline bloods bone profile, fbc, renal profile, HbA1c, lipid profile etc....
- Imaging: DEXA, PET or Bone scan
- Baseline assessment tools (PROMS): Symptoms, HRQoL, anxiety and depression
- Risk assessment: smoking, alcohol, diet, level of activity/exercise etc...

### Effective PROMs assessment

- General assessment tools:
- Hospital anxiety and depression scale (HADS)
- Patient Health Questionnaire (PHQ-9)

#### Cancer assessment tools:

Validated Tools	Purpose
RAND 36-Item Short-Form Health survey version 2 (SF36v2)	A 36-Item index, to determine perceived health-related quality of life
University of California, Los Angeles PC Index (UCLA-PCI)	A 20-item index to assess prostate treatment quality of life
Mental Health Index – 5 (MHI-5)	An evaluation of depression and contentment
Fife Constructed Meaning Scale (CMS)	An evaluation of the positive meaning ascribed to cancer
Memorial Anxiety PC (MAX-PC)	An evaluation of anxiety
Analogue distress thermometer	11 point, which specifically measures psychological burden in oncology patients.
European Organization for Research and Treatment of Cancer Quality of Life Questionnaire-Core 30 (EORTC QLQ- C30)	A 30-item index - multi-item scales and single-item measures that include five functional scales, three symptom scales, a global health status / QoL scale, and six single items.

#### Refs:

Fife, B.L., The measurement of meaning in illness. Social Science & Medicine, 1995. 40(8): p. 1021-1028.

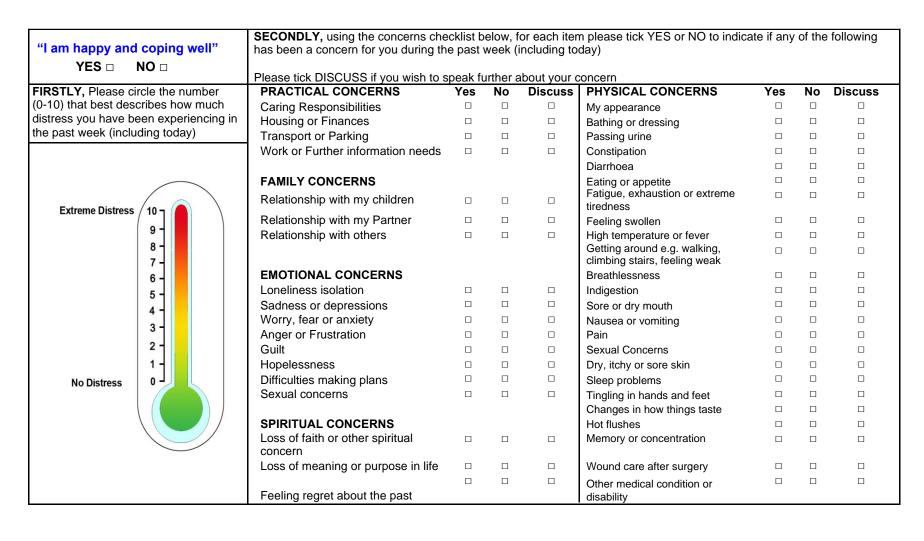
Mishel, M.H., The measurement of uncertainty in illness. Nursing research, 1981. 30(5): p. 258-263.

Roth, A.J., B. Rosenfeld, A.B. Kornblith, C. Gibson, H.I. Scher, T. Curley-Smart, et al., *The memorial anxiety scale for prostate cancer.* Cancer, 2003. 97(11): p. 2910-2918.

Clark, J.A., T.S. Inui, R.A. Silliman, B.G. Bokhour, S.H. Krasnow, R.A. Robinson, et al., *Patients' perceptions of quality of life after treatment for early prostate cancer.* Journal of Clinical Oncology, 2003. **21**(20): p. 3777-3784.

Mitchell, A.J., Pooled results from 38 analyses of the accuracy of distress thermometer and other ultra-short methods of detecting cancer-related mood disorders. J Clin Oncol, 2007. **25**(29): p. 4670-81.

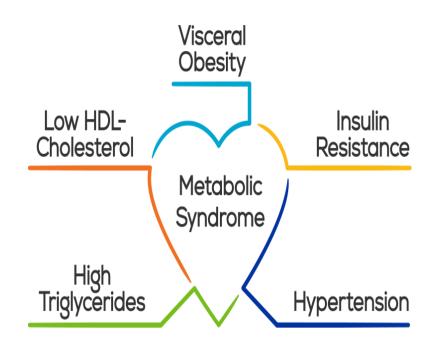
### Holistic Needs Assessment



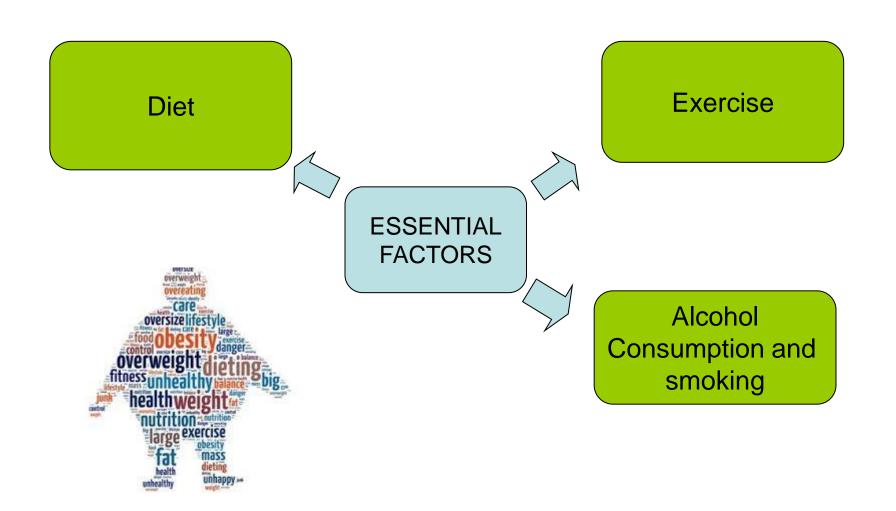
### Managing the effect of ADT

### Metabolic syndrome

Metabolic syndrome is a cluster of conditions — increased blood pressure, high blood sugar, excess body fat around the waist, and abnormal cholesterol or triglyceride levels — that occur together, increasing your risk of heart disease, stroke and diabetes.



### Reducing the risk of metabolic syndrome







### Healthy eating habits

#### Fruit and vegetables:

✓ 5 portions per day (80g)

#### **Red and processed meat:**

500g of cooked red meat (700 to 750g before cooking) a week only.

#### Saturated fats

- ✓ Choose tomato-based sauces instead of creamy ones.
- ✓ Replace fatty snacks such as crisps and biscuits with healthier options such as fruit.
- ✓ Avoid processed meat such as ham, bacon, sausages and burgers.
- ✓ Eat less red meat and remove any visible fat. Try eating chicken or fish instead.
- ✓ Remove any skin from chicken or turkey. The skin contains lots of saturated fat.
- ✓ Add less fat when you cook, and grill, bake or steam food instead of frying.
- ✓ Choose rapeseed oil for cooking and olive oil for salad dressings.
- ✓ Eat healthy fats from plant foods, such as avocados, nuts and seeds.
- ✓ Choose low-fat or fat-free milk, cheese and yoghurt, or use soy milk, rice milk or oat milk instead of dairy products.

### Diet

- Calcium (bone reformation) 1200-1500mg daily
  - Dairy, figs, apricots, broccoli, cabbage
- Vitamin D (calcium absorption) 15 mins sunshine per day
  - Oily fish and fortified cereals
- Magnesium (bone growth and density)
  - Halibut, tuna, artichokes
- Potassium (preserves bone mass and density)
  - Bananas
- Boron (absorption of other minerals)
  - Fruits, vegetables, pulses and nuts











#### Calcium

- UK Reference Nutrient Intake (RNI) for men > 19 years old = 700mg calcium / day
- Men on hormone therapy = 1200-1500mg calcium / day

Sources of calcium					
Semi-skimmed milk (200ml portion)	245mg				
Cheddar cheese (30g portion)	205mg				
Plain low fat yoghurt (150g portion)	245mg				
Tinned sardines (100g portion)	500mg				
Tofu (100g portion)	275mg				
Kale (95g portion)	145mg				
Broccoli (85g portion)	35mg				
Kidney beans (60g portion)	45mg				

#### Refs:

Planas J, Morote J, Orsola A, Salvador C, Trilla E, Cecchini L et al. The relationship between daily calcium intake and bone mineral density in men with prostate cancer. British Journal of Urology. 2007; 99: 812-816

#### Vitamin D

Sources of Vitamin D (per 100g)					
Oily Fish	5 – 16ug				
Margarine	8ug				
Eggs	2ug				
Breakfast cereals	3-4ug				

- Role in calcium absorption
- Major source is sunlight between April October
- UK RNI for groups at risk of deficiency 10 micrograms / day
- Men on hormone therapy may require higher doses of vitamin D
   up to 20 micrograms / day.
  - Answer: ?\*\* consider prescribed vitamin D supplements

### Body mass index (BMI) v waist to height ratio (WHtR)

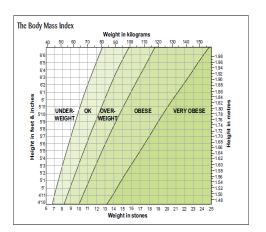
- **BMI:** Weight in kilos to the square of their height in meters.
  - Does not account for the distribution of fat around the body.

#### **BMI Range**

Less than 18.5 underweight
 18.5 – 24.9 healthy weight

□ 25 - 29 overweight

30 or greater very overweight or obese



- WtHR: Waist circumference should be less than half your height.
  - Excellent predictor of overall health e.g. risk of high blood pressure, diabetes, heart attacks and strokes.
  - Abdominal fat is more dangerous than fat around the hips and bottom.

#### Waist size

□ Women under 80cm / 31.5 inches

Men under 94cm / 37 inches

### **Exercise - The benefits**

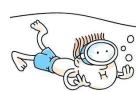
- o Helps overcome some of the side effects:
  - o Improves energy levels and reduces fatigue
  - o Helps with mood
  - o Boosts self esteem
  - o Assists losing weight (alongside healthy diet)
  - o Increases muscle bulk and tone
  - o Maintains heart health

### DoH & WHO recommendations on exercise:

#### **Aerobic exercise\*:**

•150 minutes of moderate intensity exercise per week.

30 minutes, five times per week



OR

**10 minute bursts** of activity OR

### 75 minutes of vigorous intensity per week

\*recommended for the general adult population and is agreed to be safe for cancer patients too.

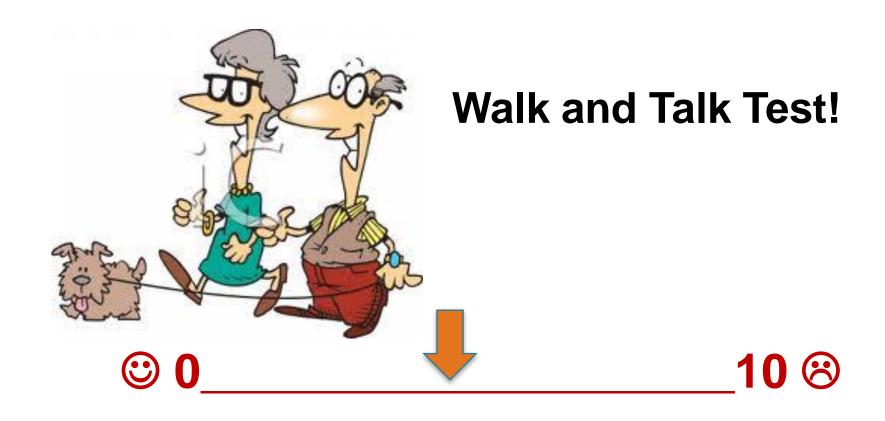
#### Refs:

World Health Organisation (2011) Information sheet: global recommendations on physical activity for health 18 64 years old. Available from <a href="http://www.who.int/dietphysicalactivity/publications/recommendations18\_64yearsold/en/">http://www.who.int/dietphysicalactivity/publications/recommendations18\_64yearsold/en/</a> (Accessed 4 September 2017)

Department of Health (2011) Physical activity guidelines for adults aged 19-64. Available from <a href="https://www.gov.uk/government/uploads/system/uploads/attachment\_data/file/213740/dh\_128145.pdf">https://www.gov.uk/government/uploads/system/uploads/attachment\_data/file/213741/dh\_128146.pdf</a>

To the latter of the

### What is meant by **moderate** intensity?



Feeling puffed, able to talk but not sing a song

### Strengthening, balance and flexibility exercises

The DoH and WHO also recommend activities for major muscle groups 2-3 times per week:

- •Strengthening exercises: exercising with weights, or carrying/moving heavy loads such as groceries
- •Balance and flexibity: Older adults at risk of falls (cognitive impairment) e.g. yoga, Tai Chi

### How to make it happen?

#### **Recommendations:**

- Set realistic goals for patients
- Ask them to keep a record of the activity and share at their next visit
- Check local councils for organised activities
- •GP/CNS referral to an exercise scheme e.g. Walk for Health <a href="https://www.walkingforhealth.org.uk/">https://www.walkingforhealth.org.uk/</a>

Refs:

Cramp, F. A. and Byron-Daniel, J. Z. (2012) Exercise for the management of cancer related fatigue in adults. *Cochrane Database of Systematic Reviews*, 11 (131). ISSN 1469-493X Available from: <a href="http://eprints.uwe.ac.uk/18700">http://eprints.uwe.ac.uk/18700</a>

## Smoking and Alcohol Risk Assessment



#### **Smoking**

- Decreases sex hormone concentration
- Increases bone turnover
- Decreases calcium absorption
- Reduces bone density
- Up to an 80% increased risk of fractures
- Advice:
  - NHS Choices and/or QUIT.

#### **Alcohol**

- Poor nutrition
- Impairs calcium and vitamin D metabolism
- Increased risk of falls
- Advice:
  - 2 units per day (acceptable for good bone health)



# Treating the symptoms of hormone therapy





# Sexual/Erectile dysfunction

#### **Problem:**

Libido: Reduced/None on HT

#### •Body image:

- •Reduced EF (loss of nocturnal tumescence) = fibrosis.
  - •The penis may become shorter
  - •Risk of developing a Peyronie's plaque in the penis leading to permanent change in shape/curvature of the penis.
- Less semen
- Less intensive orgasm

#### The IIEF-5 Questionnaire (SHIM) Please encircle the response that best describes you for the following five question

Over the past 6 months:					
How do you rate your confidence that you	Very low	Low	Moderate	High	Very high
could get and keep an erection?	1	2	3	4	5
When you had erections with sexual stimulation, how often were your	Almost never or never	A few times	Sometimes	Most times	Almost alwa or always
erections hard enough for penetration?		(much less than half the time)	(about half the time)	(much more than half the time)	
	1	2	3	4	5
3. During sexual intercourse, how often were you able to maintain your	Almost never of never	A few times	Sometimes	Most times	Almost alwa or always
erection after you had penetrated your partner?		(much less than half the time)	(about half the time)	(much more than half the time)	
	1	2	3	4	5
4. During sexual intercourse, how difficult was it to maintain your erection to completion of intercourse?	Extremely difficult	Very difficult	Difficult	Slightly difficult	Not difficu
	1	2	3	4	5
5. When you attempted sexual intercourse, how often was it satisfactory	Almost never or never	A few times	Sometimes	Most times	Almost alwa or always
for you?		(much less than half the time)	(about half the time)	(much more than half the time)	
	1	2	3	4	5

#### **Assessment:**

Total Score:				
1-7: Severe ED	8-11: Moderate ED	12-16: Mild-moderate ED	17-21: Mild ED	22-25: No ED

- -Pre-treatment functional baseline (IIEF-5)
- -Co-morbidities
- -Medications
- -Bloods to rule out other causes e.g. diabetes
- –Visual review size of penis and testicles (validation, penile pathology)

#### •Solution:

-Early and regular use of treatments for ED help to limit and prevent this.

#### Rofe:

Oliffe J. Embodied masculinity and androgen deprivation therapy. Sociology of Health and Illness 2006; 28(4): 410-432.

Elliott S, Latini DM, Walker LM et al. Androgen deprivation therapy for prostate cancer: Recommendations to improve patient and partner quality of life. Sex Med. 2010. DOI: 10.1111/j.1743-6109.2010.01902

Beck AM, Robinson JW, Carlson LE et al. Sexual intimacy in heterosexual couples after prostate cancer treatment: What we know and what we still need to learn. Urol Oncol. 2008 Feb 22.

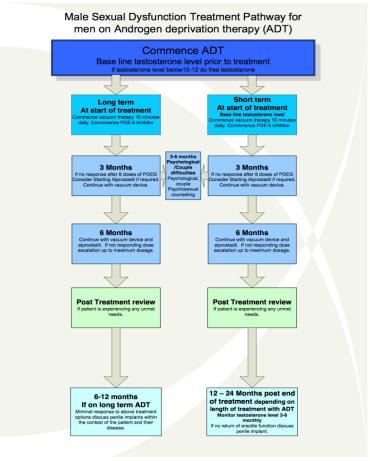
London Cancer Alliance (2016) Sexual Consequences of Cancer Treatment Management Pathway http://www.londoncanceralliance.nhs.uk/media/125886/lca-sexual-consequences-of-cancer-treatment-management-pathway-march-2016-v2-final.pdf

### Sexual/Erectile dysfunction

(ED)

- PDE5 Daily v's As required
- When PDE-5 inhibitors fail:
  - -vacuum devices e.g. Erectaid Esteem
  - -intra-urethral inserts e.g. MUSE
  - -penile injections e.g. caverject and invicorp
  - -prostheses
- Consider psycho-sexual counselling early





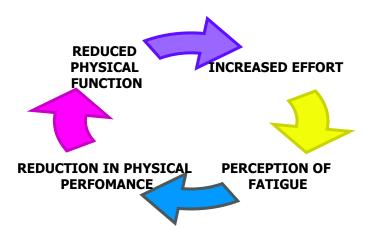
#### Ref:

London Cancer Alliance (2016) Sexual Consequences of Cancer Treatment Management Pathway http://www.londoncanceralliance.nhs.uk/media/125886/lca-sexual-consequences-of-cancer-treatment-management-pathway-march-2016-v2-final.pdf

### Fatigue

 Assessment: Nutrition, depression, pain, stress, anaemia, ?UTI, co-morbidities, medications

Example of unidimensional method to assess fatigue: embedded within symptom checklists (A) and an independent fatigue-specific tool (B).



lave you during the last 3 days (week	) been bothered by									
Tiredness	not at all		□ a littl	е	☐ quit	e a bit		□ ve	ery much	
Lack of energy	not at all		a littl		quite a bit			very much		
Difficulties sleeping	not at all		□ a little		quite a bit			very much		
Did you need to rest?  Have you had trouble sleeping?  Were you tired?	1 1		2			3 3			4	

В				
The Visual Analog Fatigue Scale (VAFS)				
Date:				
	I do not feel tired at all	I feel totally exhausted		
07.00:				
12.00:				
17.00:				
21.00:				

### **Treatment**

- Exercise 12 weeks to improvement
- Stress management
- Scheduled sleep
- Fatigue support service PCUK Specialist Nurses (10 week telephone based)
- Diet:
  - Reduce caffeine
  - Nutritional supplements

#### Refs

### Hot flushes/Night sweats

#### Common triggers:

- Diet, anxiety and depression, alcohol, stress,
- caffeine, smoking, spicy foods, hot rooms and hot weather

#### Treatment:

- Anxiety and depression: CBT, support groups, exercise
- Environment clothing: 100% cotton
- Diet: reduce spicy foods and caffeine intake
- Herbal remedies: Sage tea, evening primrose, red clover, black cohosh supplements (not in the presence of liver and kidney disease)
- Smoking cessation GP, NHS Choices, QUIT
- Night sweats: Chillo pillow
- Complimentary therapies: Acupuncture, reflexology



### Psychological morbidity

Distress, anxiety and depression



### Patient Health Questionnaire (PHQ-9)

(ASCO Guideline - 2014)

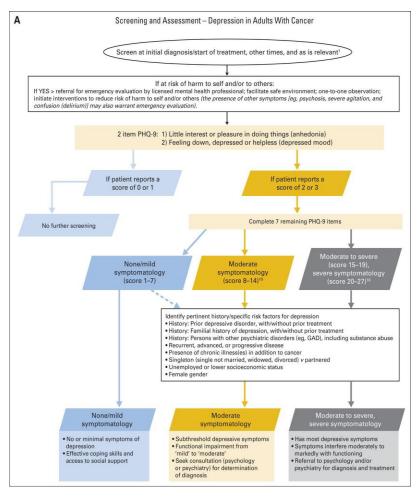
#### **PATIENT HEALTH QUESTIONNAIRE-9** (PHQ-9)

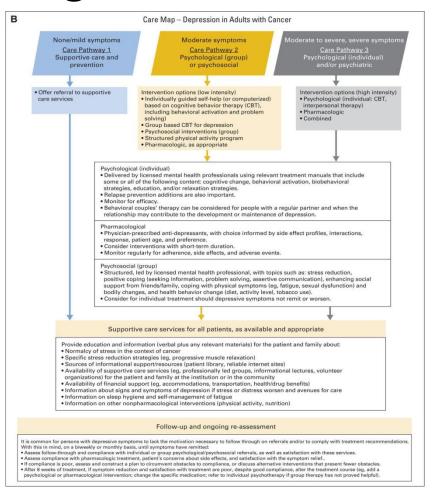
Over the <u>last 2 weeks</u> , how often have you been bothered by any of the following problems? (Use "\sum" to indicate your answer)	Not at all	Several days	More than half the days	Nearly every day
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed, or hopeless	0	1	2	3
3. Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4. Feeling tired or having little energy	0	1	2	3
5. Poor appetite or overeating	0	1	2	3
Feeling bad about yourself — or that you are a failure or have let yourself or your family down	0	1	2	3
7. Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
Moving or speaking so slowly that other people could have noticed? Or the opposite — being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
Thoughts that you would be better off dead or of hurting yourself in some way	0	1	2	3

FOR OFFICE CODING \_\_\_\_ + \_\_\_\_ + \_\_\_\_ + \_\_\_\_\_

=Total Score:

### Screening tool





Journal of Clinical Oncology 32, no. 15 (May 2014) 1605-1619.. Screening, Assessment, and Care of Anxiety and Depressive Symptoms in Adults With Cancer: An American Society of Clinical Oncology Guideline Adaptation

Barbara L. Andersen, Robert J. DeRubeis, Barry S. Berman, Jessie Gruman, Victoria L. Champion, Mary Jane Massie, Jimmie C. Holland, Ann H. Partridge, Kate Bak. Mark R. Somerfield. Julia H. Rowland

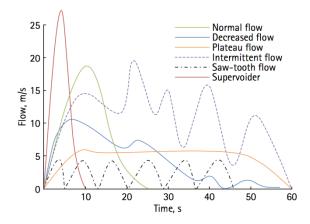
### Treatment

- Exercise: Aerobic and/or Yoga, Tai-Chi
- Controlled alcohol intake
- Psychological support:
  - One to one (PCUK programe)
  - Counselling/Talking therapies (GP prescribed or British Association of Counselling and Psychotherapy):
    - CBT
    - Mindfullness CBT
    - · Couples therapy
  - Yoga and/or Meditation
  - Regular social activities
  - Free courses on living with cancer: <u>Macmillan Cancer Support</u>, <u>Maggie's</u>
     <u>Centres</u>, <u>Self Management UK</u> and <u>Penny Brohn Cancer Care</u>
  - Online community
  - Support group

### Don't forget the presenting complaint!!!!

### **LUTS**

- Common problem in the >65year age group
  - @40% of the population
- Basic LUT's Assessment
  - Uro-flowometry: flowrate + PVR
  - Documentation of drinking habits
  - Co-morbidities e.g. diabetes
  - Completion of International prostate symptom score (IPSS)
  - **Identify**: Incontinence, irritation or storage symptoms



#### nternational Prostate Symptom Score (I-PSS)

Patient Name: \_\_\_\_\_ Date of birth: \_\_\_\_\_ Date completed \_\_\_

In the past month:	Not at All	Less than 1 in 5 Times	Less than Half the Time	About Half the Time	More than Half the Time	Almost Always	Your score
Incomplete Emptying     How often have you had the     sensation of not emptying     your bladder?	0	1	2	3	4	5	
2. Frequency How often have you had to urinate less than every two hours?	0	1	2	3	4	5	
3. Intermittency How often have you found you stopped and started again several times when you urinated?	0	1	2	3	4	5	
4. Urgency How often have you found it difficult to postpone urination?	0	1	2	3	4	5	
5. Weak Stream How often have you had a weak urinary stream?	0	1	2	3	4	5	
6. Straining How often have you had to strain to start urination?	0	1	2	3	4	5	
	None	1 Time	2 Times	3 Times	4 Times	5 Times	
7. Nocturia How many times did you typically get up at night to urinate?	0	1	2	3	4	5	
Total I-PSS Score							

Score:

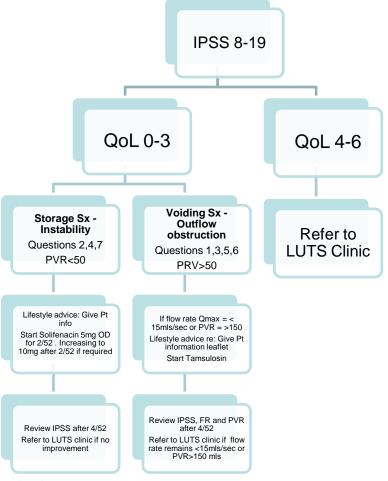
1-7: Mild

8-19: Moderate

20-35: Severe

Quality of Life Due to Urinary Symptoms	Delighted	Pleased	Mostly Satisfied	Mixed	Mostly Dissatisfied	Unhappy	Terrible
If you were to spend the rest of your life with your urinary condition just the way it is now, how would you feel about that?	0	1	2	3	4	5	6

### **LUTS Algorithm**



- 1. Before prescribing alpha-blocker check:
  - Patient hasn't got a history of cataracts (these can cause floppy iris syndrome)
  - Patient isn't on other alpha blockers
- 2. Before prescribing anti-cholinergics check:
  - Patient hasn't got a history of (untreated) closed angle glaucoma
  - Start patients >65years old on lowest dose avoid solifenacin

### Treatment

- Drugs/herbal: Anti-cholinergics, alpha blockers, saw palmetto
- Drinking advice: caffeine, volume etc...
- Physio/Continence CNS: Bladder retraining, electrical stimulation, biofeedback
- Specialist urology referral:
  - TURP/BNI/HoLEP/PVP Laser
  - Bulking agents
  - Botox
  - Artificial urinary sphincter.



• Ref: NICE Guidelines for LUTS https://www.nice.org.uk/guidance/cg97

# How do we deliver a world class service to more patients with limited resources?

Easy wins!

#### **EXAMPLE SUPPORTED SELF-MANAGEMENT PLAN FOR MR KINSELLA**

Diagnosis: Prostate Cancer diagnosed February 2009 when PSA 302, Gleason 3+4; Bone scan April 2009 no metastases seen

Treatment: Commenced hormone therapy ( ZOLADEX) February 2010. Stopped ZOLADEX March 2011 (last injection Dec 2010) when PSA 0.3ug/l. On intermittent therapy.

Your Prostate Cancer Specialist: Dr Julia Murray

Your Prostate Cancer Nurse: Netty Kinsella 020 8674 0232

Your current Blood Results: Are stable

#### Your recent results:

	Date	Result	Comment
PSA	12/5/2011	0.27 ug/l	(0.3 ug/l March 2011)
Bone density scan	12/5/2011	normal	
Testosterone	12/5/2011	3 mmol/l	

#### Your reported symptoms:

Lower urinary tract symptoms		You report getting up quite a bit at night to pass urine, but feel this is improving with reduced
Lower urinary tract symptoms		coffee intake
Hormone related symptoms		
	Hot flushes	Quite a bit, but improving in the last few weeks
	Mood swings	Nil, you report slight difficulty with memory
	Gynaecomastia	Nil
	Oedema / Shortness of Breath	Nil
	Weight gain	2 kg
	Loss of libido / Erectile Dysfunction	You have reported penile shrinkage
Bone pain		No bone pain noted
Tiredness / Fatigue		Nil
Activities of Daily Living / exercise		You report no difficulty with activity, you walk but irregularly

#### Your prostate cancer follow-up plan:

- •Please **continue** with the ZOLADEX injections at this stage
- •Please have your PSA checked every three months with your GP please call me if your psa rises to 2ug/l
- •I will review you by telephone in six months.

Your personal prostate cancer related goals: loose one kg in the next month, walk the dog for 20 minutes daily, change to calcium enriched trim milk, use your vacuum device for 10 mins per day 3-5 days per week to help reduce penile shrinkage.

### Supported self-management



#### **Traditional Model of care**

- One to one
- Multiple clinic appointments
  - Dietician
  - Physio
  - Nurse
- = 90mins per patient

### Peer group "Seminar style"

- Up to 15 patients per seminar
- 150 mins x 1 pcm
- Peer support
- 1 appointment
  - PP presentation (consistency)
  - Accompanying literature

### Results – The savings

Financial Saving for CCG			
	Traditional	Group Seminar	Saving
Patients	360	360	
Sessions	3	1	
Charge to CCG per patient	£270	£90	
Total	£97,200	£32,400	£64,800

Nursing and AHP hours saved for Hospital				
	Traditional	Group Seminar	Saving	
Patients	360	360		
Sessions	3	12		
Nursing and AHP Hours	1.5	2.5		
Total	540	30	510	