

Chronic sequelae: physical and psychological difficulties of cancer survivors

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here is the case...

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Being disease free does not mean being free of your disease

Julia Rowland

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Chronic sequelae of cancer

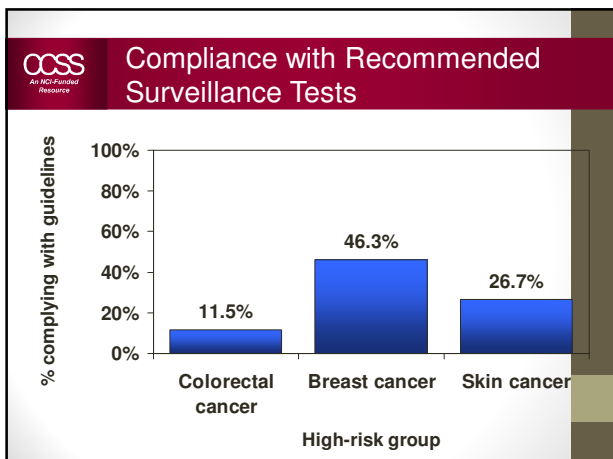
- Second cancers
- Fertility, sexuality, menopause
- Bone
- Metabolic
- Cardiac
- Neurological and cognitive
- Psychological
- Fatigue
- Social and financial
- Etc, etc, etc..

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What can be done

- Second cancers
 - Screening
 - Risk reduction – prevention
 - Risk avoidance – smoking, diet, exercise
- Cardiovascular
 - Cardioprotectants
 - Risk modification - manage BP, cholesterol, weight
- Fertility
 - prevention, IVF
- Bone
 - Vit D/Calcium, weight bearing exercise, no smoking
- Other
 - screen for problems (ie depression)
 - alerts re specific toxicities
 - Rehabilitate – physical and occupational
- Reinforce healthy lifestyle message

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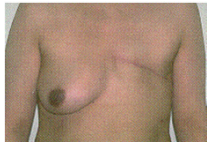


Abdo-pelvic RT in children

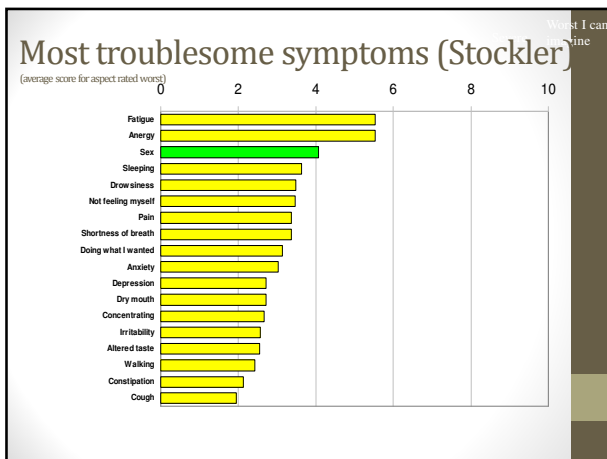
- 18000 children followed up for 25 yr
- cumulative incidence of developing colorectal cancer by age 50 years was 1.4% for survivors treated with direct abdomino-pelvic irradiation.
- This risk is comparable to the equivalent percentage (1.2%) for individuals with at least 2 first-degree relatives affected by colorectal cancer.

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Fertility, sexuality and body image



- Loss of sexual activity while waiting for treatment
- Side effects of treatment – nausea, fatigue, hair loss, weight gain
- Medications
- Extent of disease



Importance of fertility issues

- Fertility preservation of great importance
- Most survivors prefer to have biologic offspring
- Increased risk of distress if treatment induced infertility
- Patients may choose less efficacious treatment to preserve fertility

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Schover JCO 2002

- Patients
 - 51% men wanted children
 - 77% of men childless at diagnosis want children
 - 24% banked sperm
- Oncologists
 - 91% agreed sperm banking should be offered
 - 48% never bring it up or mentioned it to less than 25%
 - Costs overestimated

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“You have a 20% chance of survival – have you ever thought about having kids?”



Reasons why not discussed

- No time
- Data on infertility inconsistent
- Importance unrecognized
- Cost
- Belief that patients not interested
- Emotional discomfort
- Most patients are uncomfortable to initiate discussion (deduct from disease and treatment/lack of rapport with clinician)
- Patients may accept it as inevitable consequence
- Permission to discuss requires appropriate forum – not in the corridor/day centre

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Fertility options

- Sperm preservation
- Pre treatment – embryo, egg, ovary cryopreservation
- During treatment – GnRH ovarian suppression
- After treatment - embryo, egg, ovary cryopreservation, donor embryos, eggs, surrogacy, adoption, pregnancy
- *ASCO Guidelines on Fertility Preservation 2006

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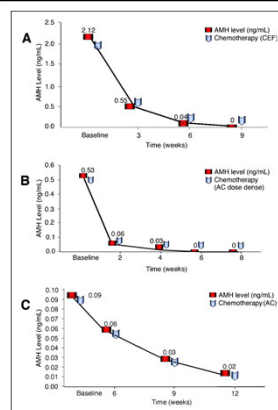


Fig 1. Decreasing anti-Mullerian hormone (AMH) levels after each course of chemotherapy

Oktay, K. et al. J Clin Oncol; 24:4044-4046 2006

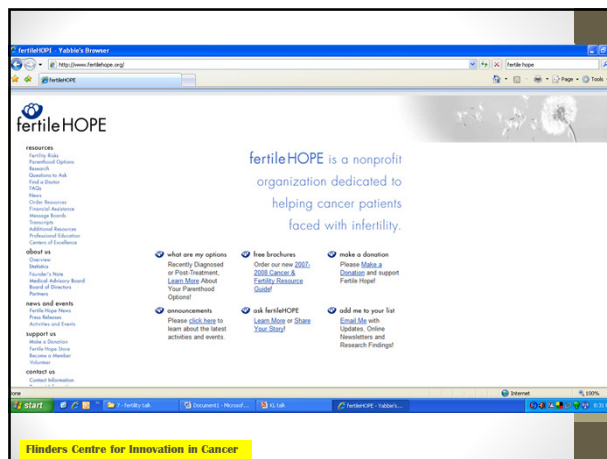
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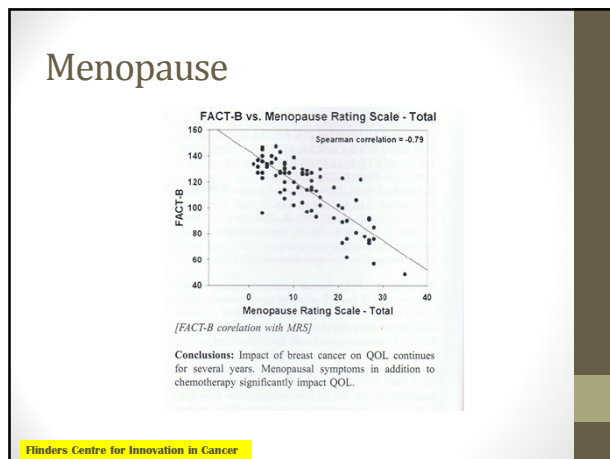
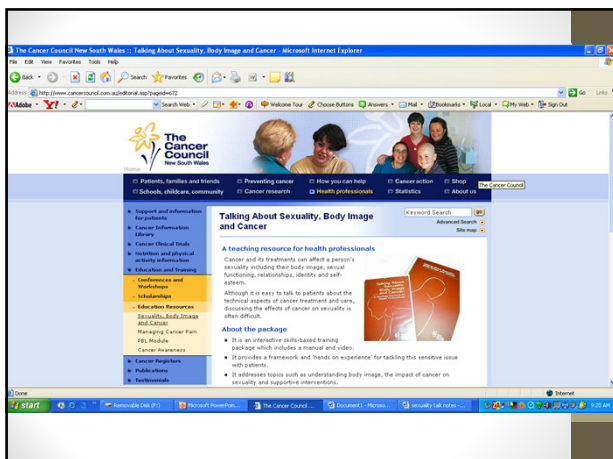
Role of oncologist

- Assessment for all patients – sexuality, intimacy, fertility before, during and after treatment
- Encourage/facilitate discussion with partner
- Discuss fertility options including no action
- Refer to specialists
- Offer counseling and support
- Encourage registries
- Support research in this area

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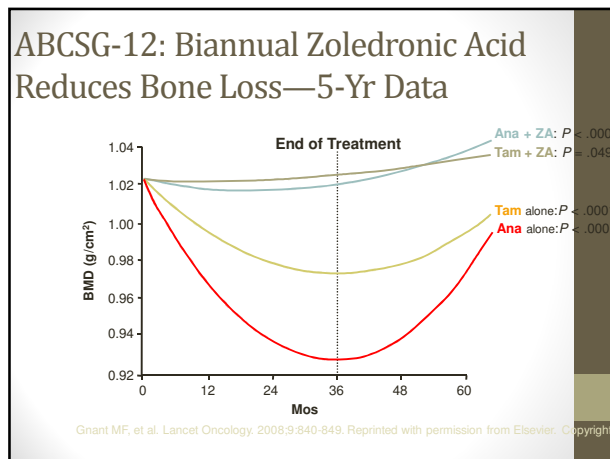


Management of menopausal symptoms

- Multidisciplinary
- Identify what the problem is
 - Hot flashes
 - Low libido
 - Depression
- Reassure
- Assess and refer as needed
- Treat
 - Clonidine, SSRIs, ? Testosterone, ? Vit D
 - acupuncture



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Management of bone loss

- Adequate calcium and vit D
- Weight bearing exercise
- No smoking

History and Physical			
BMD and Annual Height Measurements			
Lifestyle Modifications	Lifestyle Modifications	Lifestyle Modifications	Lifestyle Modifications
T Score > -1	T Score Between -1.0 and -1.5	T Score Between -1.5 and -2.0	T Score < -2.0
Re-screen in 1 Year. If BMD > -1.0. Screen Every 1 to 2 years*	Annual Screening*	Check Vitamin D Level (25[OH]D)	Check Vitamin D Level (25[OH]D)
Consider Bisphosphonate Therapy Depending on Risk Factors*		Treat with Bisphosphonate Therapy*	

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Guidelines for implementing exercise programs for cancer patients

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	n	Time since diagnosis (years)	Mean age (years)	Design	Duration (months)	Frequency and intensity	Results	Ref	
Best									
OncoSpin informed self-management programme to increase physical activity	34	3	66	Pre-post	6	Three 1 h sessions a week for 3 weeks, with telephone support	Significant increase in self-reported physical activity, physical fitness, perceived burden to exercise, and quality of life after programme	50	
Resistance and endurance exercise training programme or dog-led training	36	3/6	52	Pre-post	5	Resistance training (8-12 repetitions of six exercises) three times a week and endurance training (20% of maximum heart rate) three times a week or Dog-led training three times a week for 30 weeks	Significant increase in upper extremity strength and volume over course of intervention	53	
Progressive resistance exercise training programme	86	2		Exercise 53	RCT	6	Two 1 h supervised sessions for 12 weeks followed by two home based sessions for 3 weeks. Controls received no intervention	Significant increase in overall quality of life, vigor and lower back strength, decrease in body fat and SF-6. Changes in strength associated with changes in some psychosocial outcomes	52
Home-based physical activity intervention programme	86	2		Exercise 53	RCT	3 (follow-up at 6 months and 12 months)	Exercise five times a week for 12 weeks at 50-65% of maximum heart rate. Controls received their current level of activity during intervention	Significant increase in measures of fitness and moderate physical activity and physical fitness, overall group showed no overall vigor and decrease in fatigue	53
Combined supervised resistance and endurance exercise training programme	34	5	58	Pre-post	2	Resistance training (8-12 repetitions of six different exercises) once a week and endurance training (50-65% of maximum heart rate) three times a week. Exercise intervention was done after completion of dog-led session	Significant increase in body composition, vigor and lower body strength, overall endurance, and overall quality of life	49	
Community-based walking programme in African females	24	0/25	55	Pre-post	2 (follow-up at 3 months)	75-min physical activity counselling session in large or small groups once a week for 8 weeks	Significant increase in number of steps, significant decrease in body mass index and bodyweight	56	
Mixed									
Home-based endurance and resistance exercise training programme	119	0/8		Exercise 20	RCT	14 weeks	Maximum of three sessions a week at 60-75% of maximum heart rate. Controls maintained current levels of activity	Exercise group had greater increase in cardiorespiratory fitness and fatigue than did control group	55
Long									
Combined supervised resistance and endurance exercise training programme	30	0/25	66	Pre-post	2	Daily cycle ergometry, treadmill walking, weight lifting, and gymnastics at moderate intensity	Significant increase in peak and endurance exercise capacity, no improvements in pulmonary function	54	
Head and neck									
Progressive resistance exercise training programme after surgical resection	20			Exercise 66	RCT	3	Resistance training (six exercises progressing in sets and repetitions) three times a week. Controls received standard medical care for 12 weeks	Good adherence and compliance, exercise group had greater increase in active shoulder rotation and shoulder strength than control group	57

Pre-post results compared before and after intervention. RCT= randomised controlled trial. SF-6= health-related quality of life. *Not included in studies included in previous comprehensive reviews.
Table 2. Studies assessing effect of exercise after completion of primary therapy by site and type of intervention

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Exercise – what really happens

- Gracey et al – MASCC 2011
- approached 975 survivors, 52.3% RR
- n-456, 76% female
 - 50% interested, 52% able to exercise, 11% met requirements
 - Barriers – health, emotion, cognition, fatigue

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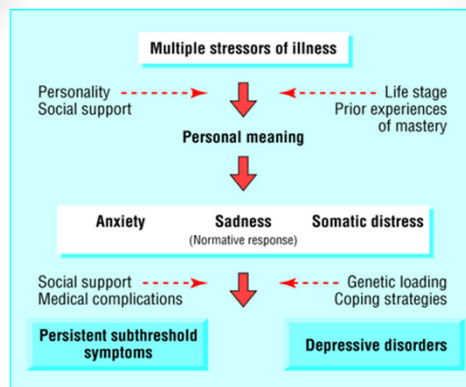
The emotional impact of cancer

- Grief and a sense of loss
- Uncertainty about the future
- Challenge to goals and values
- Concerns about recurrence
- Brings into sharp focus any pre-existing problems with relationships and support



CRICOS Provider No. 00213B

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Peveler et al 2002

Depression

- Depression undermines ability to cope with disease burden
- Depression and anxiety erode relationships, occupational and social function
- Depression is associated with:
 - Increased severity of medical symptoms
 - Additive impairment in social and vocational functioning
 - Increased health care costs
- Depression is unrecognized by doctors in up to 40% of cases


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Suicide

- 0.2% pts with cancer
- Highest risk first year and first month
- Male, older, physical condition, depression, alcohol
- Risks:
 - pain, advanced stage, delirium
 - Psych history, past history, bereavement, substance abuse, few social supports, family history

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Cancer – how are you travelling?



Understanding the emotional and social impact of cancer

NATIONAL BREAST CANCER CENTRE
University of Melbourne & Flinders University

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Content:

- The cancer journey:
 - Emotional and psychological issues
 - Anxiety and depression
 - Physical and practical issues

Travelling companions

When the road gets bumpy:

- Who might find the journey more difficult
- Is what I am feeling normal?
- Distress thermometer



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Roadside assistance:


- Support
- Talking about feelings

Stopping in for a service:

- Benefits of psychosocial interventions

Useful tips for travellers:

- Information
- Second opinion
- Active approach to problems

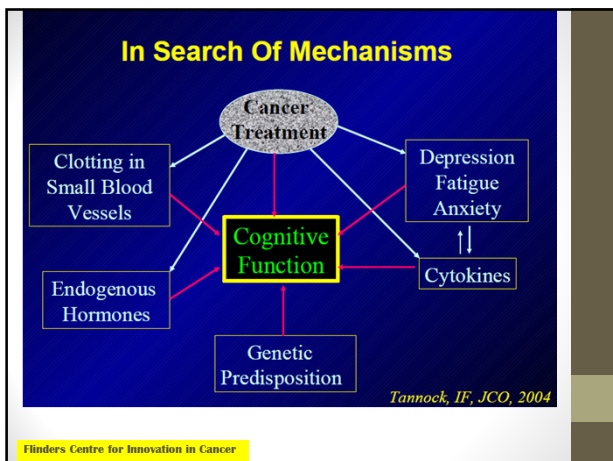


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Chemobrain

- Cognitive problems post chemo – memory, executive function, learning new material, working with numbers
- 35% impairment before therapy (Wefel et al, 2004)
- Relations to fatigue, depression and menopausal symptoms

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Interventions re cognition

- Fatigue management
- Treat insomnia
- Modafinil?
- Gingko?
- Cognitive rehabilitation?

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Cancer and employment

- Survivors at risk of low return to work
 - 45% of survivors return to work at same capacity
 - further 20% at reduced capacity
- Childhood cancer survivors twice as likely to be unemployed
- If brain ca – five times more likely (Cancer May 2006)



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Cost of cancer

- Health expenditure
- Productivity
- Other financial ie respite, aids, transport
- Non financial – pain and suffering
- Total expected lifetime cost for people diagnosed with cancer in Australia in 2005 – 94.6 bln
- Cancer treatment is 1/3 of cost of disease
- Majority is due to loss of productivity
- Highest lung and colorectal



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Putting it all together

- Fatigue
 - Depression?
 - Hypothyroidism?
 - Cardiac failure?
 - Deconditioning?
- Who assesses?
- Who manages?
- Who follows up?



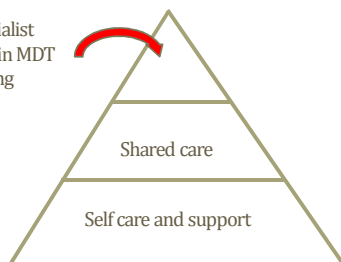
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BOX ES-1 Essential Components of Survivorship Care

- Prevention of recurrent and new cancers, and of other late effects;
- Surveillance for cancer spread, recurrence, or second cancers; assessment of medical and psychosocial late effects;
- Intervention for consequences of cancer and its treatment, for example: medical problems such as lymphedema and sexual dysfunction; symptoms, including pain and fatigue; psychological distress experienced by cancer survivors and their caregivers; and concerns related to employment, insurance, and disability; and
- Coordination between specialists and primary care providers to ensure that all of the survivor's health needs are met.

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Specialist care in MDT setting



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