



2018

28-30 JUNE
VIENNA, AUSTRIA

SUPPORTIVE CARE
MAKES EXCELLENT
CANCER CARE POSSIBLE

Sleep Disturbance in Older Adults With Cancer

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MASCC/ISCO

ANNUAL MEETING ON SUPPORTIVE CARE IN CANCER



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Faculty Disclosure

X	No, nothing to disclose
	Yes, please specify:

<i>Company Name</i>	<i>Honoraria/ Expenses</i>	<i>Consulting/ Advisory Board</i>	<i>Funded Research</i>	<i>Royalties/ Patent</i>	<i>Stock Options</i>	<i>Ownership/ Equity Position</i>	<i>Employee</i>	<i>Other (please specify)</i>
Example: company XYZ	x		x		x			



Greetings from the Canadian Prairies and the University of Alberta



A good sleep...



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Quiz: True or False

- Adults who are 65 year and older need less sleep than adults who are 18-64.
- People who sleep less than 4 hours of sleep per night are 36% more likely to die from heart complications compared to those who sleep between 6 and 8 hours per night.
- Regularly sleeping more than 8 hours per night could be a sign of health problems.
- Women need more sleep than men.



Overview

- Explore the relationship between age and sleep changes in adults with cancer
- Review management options



Sleep is...

- Comprised of Non-REM and REM phases
 - One cycle in about 120 minutes, with 4-6 cycles per night
- Managed by 3 processes: homeostasis, circadian rhythm, and ultradian processes
 - Homeostasis: S process, drive to sleep
 - Circadian rhythm: C process, internal regulatory process, rooted in hypothalamus
 - Entrained by light, food, stress, temperature, hormones, etc.
 - Ultradian processes: regulate Non-REM and REM alteration
 - S and C responsible for sleep consolidation, but changes to C have a greater impact





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- Factors that make older adults more at risk for sleep disturbance
 - Changes in sleep architecture: more Non-REM and less REM sleep
 - Harder time falling asleep and staying asleep
 - Alterations to circadian rhythms (McClung and colleagues, 2016)
 - Early wakening, less robust control over body temperature





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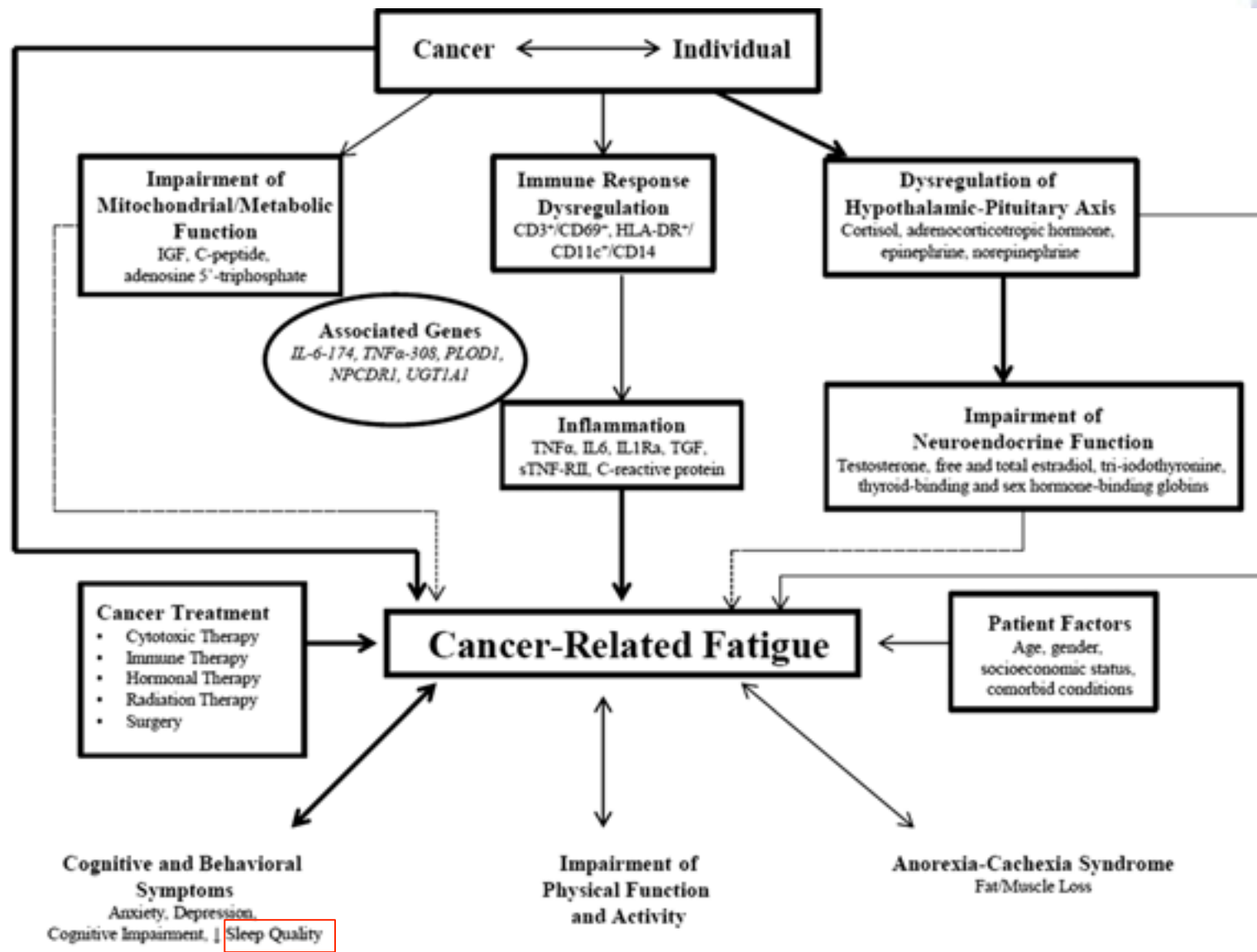
- Factors that may increase sleep disturbance and insomnia in individuals with cancer (Spielman and colleagues, 1987)
 - Predisposing: genetic, physiological or psychological factors (female gender, vulnerability to stress)
 - Precipitating: life events, physiological or psychological factors
 - Cancer and its treatments that alter levels of inflammatory cytokines may disrupt homeostasis and circadian rhythms or sleep wake cycles
 - side effects and symptoms of cancer and tx (pain, medications such as (Howell et al, 2014)
 - Perpetuating: behavioural factors (excessive daytime napping, maladaptive cognitions,





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Key:
----- Earlier Evidence of Association
----- Association
----- Stronger Association

Saligan and colleagues, 2016



The patient reports...

- Sleep disturbance: inability to initiate or maintain sleep for more than 2 weeks
- Acute Insomnia: up to one month, non-refreshing sleep with impairment in daytime functioning
- Chronic Insomnia: more than 4 weeks, impairment in daytime functioning, fatigue, cognitive impairment (concentration, memory)



Treating and Managing Sleep Disturbance

- Routine assess for treatable causes
 - Sleep apnea
 - Infection
 - Delirium
 - Allergy
 - Behavioural causes and stressors
 - Environmental (hot/cold, noise)
 - Medications
 - Psychostimulants, antidepressants, anti-hypertensives, bronchodilators, corticosteroids



- Sleep hygiene (insufficient evidence):
 - wake up at the same time
 - maintain consistent bedtime
 - regular exercise up to 4 hours before bedtime
 - relaxing activities before bedtime
 - quiet bedroom
 - cool temperature
 - no caffeine or nicotine for 6 hours before bedtime
 - alcohol in moderation but none in 4 hours before bedtime
 - avoid napping
 - avoid fluid intake before bedtime



- Cognitive behavioral therapies
 - Sleep restriction*
 - Stimulus control*
 - Cognitive restructuring
 - Relaxation therapies*
- *recommended by the American Association of Sleep Medicine. Studies of CBT have been mixed.



- Exercise interventions
 - Some evidence of benefit for home-based walking programs, but only a few studies



- Pharmacologic interventions
 - Short term benefits are clear but given long duration of sleep disturbance in cancer patients, the potential for dependence cannot be ignored
 - No clear recommendations for which medications to use in older adults.



Take home messages

- Older individuals are at increased risk for sleep changes
- Routinely assess for possible sleep changes
 - Treat correctable causes
 - Manage chronic sleep changes
 - Sleep hygiene
 - Sleep restriction
 - Stimulus control
 - Relaxation

