PREP-4 CANCER SURGERY

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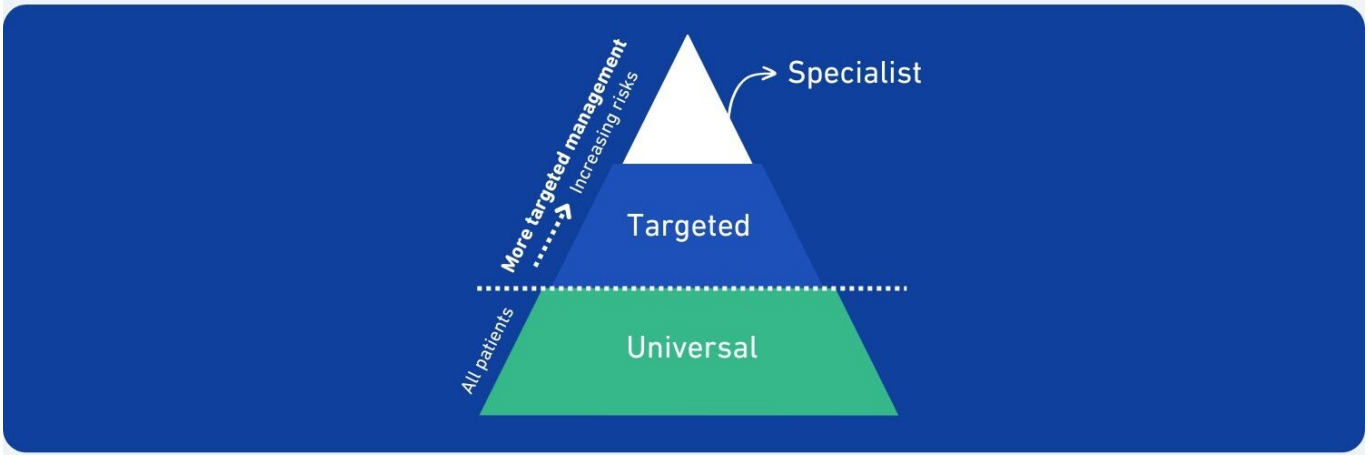
Targeted and specialist psychology intervention

Overview

Based on a comprehensive assessment by a trained healthcare professional, individuals should be stratified into moderate- or high-risk categories.

Risk stratification informs the allocation of care, with moderate-risk individuals receiving targeted prehabilitation interventions and high-risk individuals receiving specialist psychological interventions.[1]

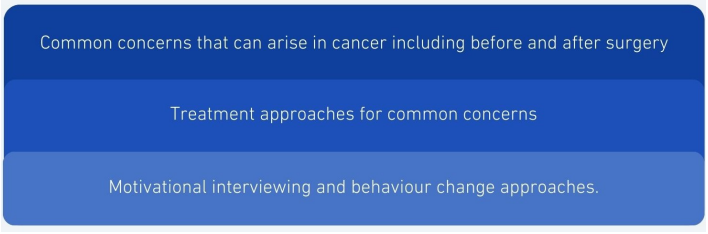


Modified from MacMillan Prehabilitation interventions triangle[1]

Targeted psychological intervention

Who can deliver it

Clinicians delivering targeted interventions need to have a baseline understanding of:



Targeted interventions can be delivered by healthcare professionals with additional training in

psychological support or behaviour change such as:

- Psychologists
- Social workers
- Counsellors
- Clinical nurse specialists
- Occupational therapists
- Dietitians
- Physiotherapists
- Speech therapists

How – targeted psychological intervention

When individuals experience **mild-moderate levels** of mental health symptoms or prehabilitation psychological concerns, any targeted interventions should be delivered directly from the clinician via face-to-face, video-calls or phone calls and personalised to the individual with cancer[2].

Direct personal education has been shown to reduce anxiety and improve skills/knowledge in psycho-oncology whereas universal education improves only skills/knowledge[3].

Targeted prehabilitation interventions could include the following interventions:

Anxiety and stress management

This may include[4]:

- Psychoeducation about anxiety and how to cope with it
- Tailored relaxation skills training
- Psychoeducation on stress and increasing awareness of stress.

Problem solving and coping strategies

This can include[5,6]:

- Assessment of coping strategies
- Instructions for promoting active coping
- Individualised problem-solving skills training
- Activity pacing
- Seeking out social supports
- Having realistic recovery expectations; and
- Solution-focused therapy.

Clinicians may focus on practical preparations including planning meaningful achievable activities for inpatient admission and recovery.

Communication skills training

Teaching individuals with cancer how to seek and clarify information from their healthcare team is an important part of preparing for any major cancer treatment including surgery. The use of question prompt lists may be beneficial for healthcare appointments and whilst they haven't been studied specifically in prehabilitation, they have been shown to reduce anxiety and increase question-asking in cancer consultations more generally[3,7].

Lack of supports

Social or family supports are not only important during the recovery period when care needs may increase, but one study found that higher levels of supports during prehabilitation is associated with higher levels of physical activity[8].

Optimising the individual with cancer's use of their support system is therefore an important psychosocial treatment component. This includes helping individuals with cancer to engage with support people who can provide them with practical support, emotional and social support.

Specialist psychological intervention

Who can deliver it

Specialist psychological interventions can be provided by clinicians with specific training in delivering psychological interventions such as psychologists or psychiatrists.

How – specialist psychological intervention

Personalised specialist psychological intervention can focus on **major psychological concerns**, which may be a barrier to engagement in broader prehabilitation interventions, surgery or impact recovery[8]. The focus of specialist psychological prehabilitation intervention should be based on clinical judgment and tailored to the individual with cancer.

While prehabilitation literature and guidelines are not yet directive on the specific psychological concerns to address or interventions to use, the existing evidence from previous prehabilitation studies, psychological interventions in cancer and psychological interventions more broadly can be applied to the prehabilitation interventions.

The following sections detail some common psychological concerns that might be targeted in prehabilitation and examples of possible interventions with a reasonable evidence base within the cancer or psychological literature.

Anxiety and stress

The majority of psychological prehabilitation interventions to date have focused on targeting anxiety or stress with relaxation skills training or problem-solving skills training, with mixed evidence[9]. However, existing evidence-based treatment for anxiety in cancer more broadly could be adapted to the prehabilitation context and may include[5,6,10-13]:

- Tailored direct relaxation skills training
- Cognitive Behaviour Therapy
- Cognitive interventions to address preoperative beliefs, reframe worries about surgery and recovery fears
- Acceptance and Commitment Therapy
- Metacognitive therapy to challenge beliefs about worrying
- Psychoeducation
- Problem-solving skills training

Depression or low mood

Existing psycho-oncology literature shows a strong evidence base for the following interventions that can be applied to prehabilitation[14-17]:

- Cognitive Behaviour Therapy such as cognitive reframing and scheduling achievable activities, particularly in line with other prehabilitation goals
- Acceptance and Commitment Therapy to defuse from fused cognitions and plan values-guided achievable activities including for recovery
- Ensure biological factors that may be impacting mood such as medications or pain are managed, or that the individual is referred to appropriate clinicians for the treatment of these factors.

Sleep

The following sleep interventions can be used during prehabilitation phase to optimise the individual's sleep and energy levels and enhance their engagement in exercise prehabilitation[18-19].

- CBT-i (Cognitive Behavioural Therapy for insomnia) is the gold standard non-pharmacological treatment of insomnia in adults. A meta-analysis and systematic review also demonstrate efficacy for CBT-i in people with cancer. Sleep interventions in the prehabilitation phase can therefore draw from CBT-i and interventions may include psychoeducation, stimulus control, addressing unhelpful sleep cognitions, sleep restriction where appropriate and supported by a clinician.
    - Further information on CBT-i in the cancer context including a link to a two-hour online seminar and a self-management booklet called Can-Sleep can be found here.
- Relaxation training to use before sleep or after awakenings.
- Management of biological factors impacting sleep such as hot flushes or pain.

Pain

Pain is a crucial treatment target due to its impact on prehabilitation engagement as it may be a barrier to individuals engaging in exercise prehabilitation and may affect sleep and therefore increase fatigue and prehabilitation adherence.

Pain during the prehabilitation phase may also be a risk factor for chronic pain post recovery.

Systematic reviews and meta-analyses identified that the following interventions can reduce cancer pain[20-21]:

- Mindfulness-based cognitive therapy
- Relaxation including progressive muscle relaxation and guided imagery
- Emotional and symptom focused engagement (EASE)
- CBT for pain management
- Acceptance-based interventions.

Secondary consultations to the treating team and exercise clinicians can also be beneficial regarding the psychological conceptualisation of the individual's pain. This helps the treating team become aware of the unhelpful pain cognitions that may be barriers to the individual's exercise prehabiltiation and supports them to provide accurate information to help challenge these cognitions (e.g. that the pain is not going to be damaging their body if applicable).

Fatigue

CBT for fatigue is recommended during prehabilitation[2], particularly when fatigue is impacting ability to engage in exercise prehabilitation or is affecting quality of life.

Referral onto occupational therapy can also be beneficial to support practical management of fatigue in activities of daily living.

Trauma

Evidence of trauma therapy in broader cancer or medical contexts can be applied to prehabilitation[(e.g. 22)].

There is opportunity for further clinical and research work in trauma for the prehabilitation context. The following may be considered:

- Clinicians might choose to focus on existing evidence-based interventions that promote short-term benefits that are priorities in this context including interventions resulting in stress reduction, increasing sense of safety and trust particularly with the treating team, and increasing sense of autonomy and choice
- Secondary consultation to treating clinicians when the individual with cancer consents is beneficial to ensure clinicians are using trauma-informed practice such as taking a non-directive approach when communicating; offering individuals simple choices; asking the individual with cancer to repeat information to check their understanding; and ensuring that the individual understands treatment information before consenting to any treatment offered including prehabilitation interventions.

Your wider service might also consider undertaking some trauma-informed training.

Additional considerations

In addition to the above core concerns that may directly impact prehabilitation, the following psychological concerns are common for people undergoing major cancer surgeries, and should be managed as needed by the treating psychologist or psychiatrist:

- Body image and identity concerns (see Managing body image difficulties of adult cancer patients: lessons from available research for suggestions)[23]
- Sexual functioning concerns
- Cognitive functioning difficulties
- Healthy lifestyle behaviours including reducing alcohol or drug use
- Personality traits that may impact prehabilitation or recovery.

See Patient resources for information that can be provided to patients for these concerns.

Timing of intervention

The timing of psychological prehabilitation interventions should be based on clinical judgment of the needs of the individual. In the absence of specific guidelines on the optimal timing of prehabilitation psychological interventions, the following factors can be considered:

Reasons for early psychological intervention	**Reasons for later psychological intervention** (closer to surgery date)
Allows enough time to support the individual's behaviour change to engage in other prehabilitation interventions (e.g. exercise, nutrition).	Anxiety may increase closer to surgery and when more details about surgery are provided.
Allows enough time to address any potential severe mental health concerns.	The majority of research studies have delivered a single session of psychological prehabilitation one week prior to surgery +/- follow up post-surgery.

Allows enough time to address multiple psychological concerns that may arise with more complex surgeries (e.g. body image, sexual functioning concerns, significant quality of life impacts).	

On balance, services may decide to provide immediate psychological assessment following referral, with consideration of reassessment or pathways to re-engage should further concerns arise closer to surgery date or following surgery.

Frequency of reviews

There is currently no guideline as to the timing or frequency of reviews, as such the number and frequency should be based on clinical judgment.

Reviews may be considered useful in the 1-2 weeks before surgery when anxiety is likely to escalate, which is also consistent with the timing of psychological prehabilitation in much of the existing literature.

Services or clinicians may also consider reassessing needs and considering reviews at discharge from inpatient admission or shortly afterwards when adjustment and mood difficulties may arise.

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