Faster Cancer Treatment:
High suspicion of cancer definitions

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Introduction

The following definitions have been developed by clinically-led tumour standards working groups to support achievement of the Faster cancer treatment (FCT) health target by clarifying what constitutes a 'high suspicion of cancer' for ten tumour streams.

Faster cancer treatment health target

85 percent of patients receive their first cancer treatment (or other management) within 62 days of being referred with a high suspicion of cancer and a need to be seen within two weeks by July 2016, increasing to 90 percent by June 2017.

The FCT health target builds on the significant improvements that have been made in the quality of cancer services over recent years. It provides a lens across the whole cancer pathway to ensure people have prompt access to excellent cancer services.

The following points are applicable across all definitions:

A resource for triaging(or prioritising) clinicians
The definitions have been developed for use, in the first instance, by triaging (or prioritising) clinicians within secondary and tertiary care who are responsible for determining or confirming the 'high suspicion of cancer' flag. DHBs are encouraged to consider how the definitions can be adapted and used to support improved detection and referral of patients with a high suspicion of cancer from primary care.

Apply to the 'high suspicion of cancer' component of the health target
To be included within the FCT health target cohort a patient must have both a high suspicion of cancer *and* a need to be seen within two weeks. The definitions only apply to the 'high suspicion of cancer' component of the FCT health target and are not intended to define the urgency of the referral. The triaging clinician will need to make a separate assessment of whether a patient meets the criteria of needing to be seen within two weeks.

Guidance to help inform clinical judgement
The definitions are intended as guidance to help inform clinical judgement. If other features/symptoms/signs exist that raise concerns, the triaging clinician can still choose to triage as 'high suspicion of cancer'.

Risk factors have been included for some tumour types
Some tumour streams have included risk factors to support their high suspicion of cancer definitions, with particular consideration of specific factors that that may influence the triaging process. It should also be noted that Māori present with cancer at an earlier age than non-Māori across all tumour types.

Referrals with a positive fine needle aspiration and/or biopsy
Patients referred though an outpatient pathway with a positive fine needle aspiration (FNA) and/or biopsy for cancer at the time the referral is received within secondary/tertiary care should be triaged as having a high suspicion of cancer (rather than a confirmed cancer) and included within the FCT health target cohort. This is because these patients will require further investigations and assessment before a confirmed diagnosis and decision on treatment is made. It also supports direct access to diagnostics from primary care.

1. Breast

BREAST CANCER[1]	
If the patient presents ***with one or more*** of the following red flags, then the referral should be triaged as 'High Suspicion of Cancer'.	
Red flags	**YES or NO**
Diagnosed cancer on fine needle aspiration or core biopsy (or results suspicious of malignancy)	
Imaging suspicious of malignancy	
Discrete, hard breast lump with fixation (with or without skin tethering)	
Discrete breast lump that presents in women ***with one or more of the following***: • age 40 years or older, and persists after her next period or presents after menopause • aged younger than 40 years and the lump is increasing in size or where there are other reasons for concern (see risk factors below), such as strong family history • with previous breast cancer or ovarian cancer	
Suspected inflammatory breast cancer or symptoms of breast inflammation that have not responded to a course of antibiotic	
Spontaneous unilateral bloody nipple discharge	
Women aged over 40 years with recent onset unilateral nipple retraction or distortion	
Women aged over 40 years with unilateral eczematous skin or nipple change that does not respond to topical treatment	
Men aged 50 years and older with a unilateral, firm sub-areolar mass, which is not typical gynaecomastia or is eccentric to the nipple	

[1] **Risk Factors:**
- A first degree relative diagnosed with breast cancer before aged 50 years
- Two or more first degree relatives on the same side of the family diagnosed with breast cancer at any age
- Two second degree relatives on the same side of the family, diagnosed with breast cancer, at least one before age 50
- First or second degree relative diagnosed with bilateral breast cancer
- First or second degree relative with male breast cancer
- Known to carry a breast cancer susceptibility gene mutation (e.g. BRCA1 or BRCA2)
- Radiation Therapy delivered to the chest or mediastinum

2. Bowel

BOWEL CANCER[2]	
If the patient presents ***with one or more*** of the following red flags, then the referral should be triaged as 'High Suspicion of Cancer'.	
Red flags	**YES or NO**
Known or suspected bowel cancer (on imaging, or palpable or visible on rectal examination)	
Unexplained rectal bleeding (benign anal causes treated or excluded) **WITH** iron deficiency anaemia (haemoglobin and ferritin below the local reference range)	
Altered bowel habit (looser and/or more frequent) > 6 weeks duration **PLUS** unexplained rectal bleeding (benign anal causes treated or excluded) **AND** aged ≥ 50 years	

[2] Please note that these criteria are for high suspicion of cancer that would warrant direct access colonoscopy within two weeks - it is not an exhaustive list of the possible manifestations of bowel cancer that may warrant colonic investigation. Please interpret this guideline in conjunction with *Referral Criteria for Direct Access Outpatient Colonoscopy* (Ministry of Health, December 2012) and *Guidance on Surveillance for People at Increased Risk of Colorectal Cancer* (New Zealand Guidelines Group, 2011).

3. Gynaecological

GYNAECOLOGICAL CANCER	
If the patient presents ***with one or more*** of the following red flags, then the referral should be triaged as 'High Suspicion of Cancer'.	
Red flags	**YES or NO**
Biopsy-proven or cytology positive gynaecological malignant or premalignant disease[3] or Gestational Trophoblastic Disease	
A visible abnormality suspicious of a vulval, vaginal or cervical cancer (such as an exophytic, ulcerating or irregular pigmented lesion)[4]	
Significant symptoms (including abnormal vaginal bleeding, discharge or pelvic pain) AND Abnormal clinical findings suspicious of gynaecological malignancy (including lymphadenopathy, vaginal nodularity or pelvic induration)[5]	
Post-menopausal bleeding. ***(****N.B. High suspicion of cancer may be excluded if physical examination, smear and vaginal ultrasound are normal[6])*	
A rapidly growing pelvic mass or genital lump[7]	
Women with a palpable or incidentally-found pelvic mass (including any large complex ovarian mass >8 cm) UNLESS investigations (ultrasound and tumour markers) suggest benign disease[8]	
Women with a documented genetic risk who have a suspicious pelvic abnormality or symptoms[9]	

[3] Please see National Cervical Screening Programme recommendations for colposcopy referral.

[4] Women with an undiagnosed visible genital abnormality which is not highly suspicious of malignancy should be referred for gynaecological or dermatology review or undergo a biopsy.

[5] Women with gynaecological abnormalities or symptoms may also have gynaecological malignancy and the development of triage pathways is encouraged. Specific consideration includes premenopausal women with abnormal uterine bleeding. Those with persistent or deteriorating symptoms should be reviewed by a gynaecologist. A raised CA125 supports the need for further investigation in woman with persistent pelvic or abdominal symptoms.

[6] Early access to vaginal ultrasound will reduce demand on secondary services. Women without post-menopausal bleeding but with a thickened endometrium should undergo gynae review but are not defined as high risk.

[7] Discernible growth within a 3 month period is normally of concern. Undiagnosed external genital lumps with any discernible growth should normally be reviewed by a gynaecologist and/or biopsied.

[8] The development of referral pathways is recommended to ensure rapid assessment of patients with a pelvic mass, early access to pelvic ultrasound is seen as crucial to this process.
N.B. Suspicion of ovarian malignancy is indicated by metastatic disease, ascites or radiologist's impression, a raised CA125 in a post-menopausal woman or germ cell markers in a woman under 25. The risk of malignancy index (RMI) is utilised to triage patients for subspecialty care.

[9] Usually women with strong family history or known hereditary nonpolyposis colorectal cancer (HNPCC) or BRCA mutations.

4. Head and Neck

HEAD AND NECK CANCER - Oral/Throat/Lip Lesion[10]	
If the patient presents ***with one or more*** of the following red flags, then the referral should be triaged as 'High Suspicion of Cancer'.	
Red flags	**YES or NO**
A visible or palpable Oral, Throat, or Lip Lesion ***and one or more*** of the following:	
• unexplained ulcer/lesion/lump persisting for > 3 weeks	
• leukoplakia – must be either nodular, swollen, or bleeding (flat leukoplakia requires standard referral)	
• erythroplakia	
• unexplained tooth mobility/ non-healing socket	
• persistent numbness chin, lip, palate or tongue	

[10] **Risk factors:**
- Smoking history
- Excess alcohol intake
- Immunosuppression
- Betel nut
- Previous history of mouth cancer

HEAD AND NECK CANCER - Neck/Salivary Lump[11]	
If the patient presents ***with one or more*** of the following red flags, then the referral should be triaged as 'High Suspicion of Cancer'.	
Red flags	**YES or NO**
An unexplained neck/salivary mass ***and one or more*** of the following:	
• mass > 1cm and persisting > 3weeks	
• mass is increasing in size	
• previous head and neck cancer including skin cancer	
• facial palsy	
• any new unexplained upper respiratory tract symptoms such as hoarseness, dysphagia, throat or ear pain, blocked nose or ear	

[11] **Risk factors:**

- Smoking history
- Excess alcohol intake
- Past history of head and neck cancer
- Immunosuppression

HEAD AND NECK CANCER - Upper aerodigestive tract[12]	
If the patient presents ***with one or more*** of the following red flags **(new unexplained symptoms > 3 weeks)**, then the referral should be triaged as 'High Suspicion of Cancer'.	
Red flags	**YES or NO**
New throat pain or referred otalgia	
New hoarseness with a history of smoking	
New progressive dysphagia to solids or liquids (excluding isolated globus sensation)	
Stridor/upper airway noise	
New nasal obstruction associated with another red flag	
New epistaxis associated with another red flag	

[12] **Risk factors:**

- Smoking history
- Excess alcohol intake
- Past history of head and neck cancer
- Immunosuppression

5. Lymphoma

LYMPHOMA	
If the patient presents ***with one or more*** of the following red flags, then the referral should be triaged as 'High Suspicion of Cancer'	
Red flags	**YES or NO**
Lymphadenopathy persistent for 4 weeks or lymph nodes rapidly increasing in size (otherwise unexplained)	
Lymph nodes > 2cm, widespread nature, firm, non-tender	
Unexplained drenching night sweats or fevers or weight loss of greater than 10% of body weight	
Radiology suspicious for lymphoma	

6. Melanoma

MALIGNANT MELANOMA OF SKIN	
Red flags	
EITHER: **Skin lesion AND three or more of the following features:**	
A. Asymmetry of shape, structure or colour	Y/N
B. Border irregularity	Y/N
C. Colour variation / multiple colours	Y/N
D. Different from other lesions ('ugly duckling')	Y/N
E. Evolving, changing	Y/N
Risk factors	
Personal history of melanoma	Y/N
Family history of 2+ first degree relatives <40 yrs diagnosed with melanoma	Y/N
OR:	
• Dermoscopy of skin lesion is suspicious for melanoma	Y/N
IN ADDITION: **All referrals must** include the following supporting results:	
Required: Size of lesion	(space to write size)
Required: Body location	(attachment or description) (space to write location)
Required: Digital macroscopic image of lesion	(attachment)
If available: Dermoscopic image of lesion	(attachment)

7. Myeloma

MYELOMA - Plasma cell neoplasms	
If the patient presents with the following red flags, then the referral should be triaged as 'High Suspicion of Cancer'.	
Red flags	**YES or NO**
M-protein in serum and/or urine ***and one or more*** of the following	
• otherwise unexplained hypercalcaemia (> 2.75 mmol/L)	
• otherwise unexplained renal impairment – creatinine clearance <40 ml/min	
• otherwise unexplained anaemia – Hb <100g/L	
• bony lytic lesions on radiologic imaging	
• serum monoclonal protein (IgG or IgA >30g/L or involved:uninvolved serum free light chain ratio >100[13]	

[13] The serum free light chain ration is currently defined (nationally) as a Tier 2 test, which means the test cannot be requested in primary care without cost to the patient.

8. Sarcoma

SARCOMA - Soft tissue lumps (adults 15 years and older)	
If the patient presents with the following red flags, then the referral should be triaged as 'High Suspicion of Cancer'.	
Red flags	**YES or NO**
An unexplained sort tissue mass ***and one or more*** of the following	
• mass size > 5cm in size	
• increasing in size	
• deep to fascia	
• painful	
• radiology suspicious for malignancy	
• a recurrence after previous excision	

SARCOMA - Soft tissue lumps (children up to 15 years)[14]	
If the patient presents with ***one or more*** of the following red flags, then the referral should be triaged as 'High Suspicion of Cancer'.	
Red flags	**YES or NO**
An unexplained soft tissue mass ***and one or more*** of the following	
• mass size >2cm in size	
• increasing in size	
• deep to fascia	
• painful	
• radiology suspicious for malignancy	
• unexplained presence of ***one or more*** of the following: – proptosis – persistent unilateral nasal obstruction – aural polyps and/or aural discharge – urinary retention – blood-stained vaginal discharge – scrotal swelling	

[14] Children under the age of 16 years are not included within the Faster Cancer Treatment health target. Sarcoma have included high suspicion of cancer definitions for children as an educational tool to raise awareness of the signs/symptoms of sarcoma in children.

SARCOMA - Bone cancer (adults and children)[15]	
If the patient presents with the following red flags, then the referral should be triaged as 'High Suspicion of Cancer'.	
Red flags	**YES or NO**
An unexplained bony mass ***and one or more*** of the following	
• palpable mass fixed to bone	
• increasing in size	
• radiology suspicious for malignancy	
• a recurrence after previous excision	
• suspected spontaneous fracture	
• unexplained presence of ***one or more*** of the following: – increasing or persistent bone pain (especially at rest) – night pain – limp (for a child)	

[15] Children under the age of 16 years are not included within the Faster Cancer Treatment health target. Sarcoma have included high suspicion of cancer definitions for children as an educational tool to raise awareness of the signs/symptoms of sarcoma in children.

9. Thyroid

THYROID CANCER	
If the patient presents with **thyroid swelling *and one or more*** of the following red flags, then the referral should be triaged as 'High Suspicion of Cancer'.	
Red flags	**YES or NO**
Thyroid swelling ***and one or more*** of the following:	
• unexplained voice change or stridor	
• thyroid nodule in a child	
• cervical lymphadenopathy	
• painless thyroid mass rapidly enlarging, i.e. over a period of 2-3 months	
• family history of multiple endocrine neoplasm	
• cytology result indicating a high risk of cancer, ie Bethesda 5-6[16]	

[16] Although Bethesda 4 does not necessarily constitute a high suspicion of cancer, review by an endocrinologist or surgeon is required (risk of malignancy being up to 30%).

10. Upper GI

UPPER GI CANCER - Stomach Cancer[17]	
If the patient presents ***with one or more*** of the following red flags, then the referral should be triaged as 'High Suspicion of Cancer'.	
Red flags	**YES or NO**
Unexplained weight loss ***with one or more*** of the following: • upper abdominal pain in patient aged > 40yrs • dyspepsia • nausea and vomiting • haematemesis /malaena • new onset heartburn	
Upper abdominal mass consistent with stomach cancer	
Dysphagia (new onset or progressive)	
Māori or Pacific of any age with a family history of stomach cancer ***and one or more*** of the following: • upper abdominal pain • dyspepsia • reflux symptoms	

[17] **Risk factors for stomach cancer, which when present increases the suspicion**

- Excess alcohol intake
- Smoking
- High animal fat diet
- Socio-economic deprivation
- Previous gastric surgery
- Helicobacter pylori infection
- Type A blood
- Immune deficiency
- Family history of first degree relatives with stomach cancer
- Genetic syndromes (hereditary diffuse gastric cancer (CDH1), hereditary non-polyposis colorectal cancer (HNPCC), familial adenomatous polyposis (FAP, BRCA1 and 2, Li-Fraumeni syndrome, Peutz Jeher syndrome).

Investigations that would be consistent with an increased risk of stomach cancer:

- Iron-deficient anaemia/low ferritin
- Platelet count
- H.pylori infection
- Endoscopy findings of chronic gastritis

UPPER GI CANCER - Oesophageal Cancer[18]	
If the patient presents ***with one or more*** of the following red flags, then the referral should be triaged as 'High Suspicion of Cancer'.	
Red flags	**YES or NO**
Dysphagia (new onset and/or progressive)	
Unexplained weight loss in patients > 55 years ***with one or more*** of the following: • upper abdominal pain • new onset heartburn • dyspepsia • nausea/vomiting • upper abdominal pain	
Haematemesis/malaena	
Māori or Pacific of any age with family history of oesophageal cancer ***with one or more*** of the following: • upper abdominal pain • new onset heartburn • dysphagia (new onset or progressive) • dyspepsia	

[18] **Risk factors for oesophageal cancer which when present increases the suspicion**

- Age over 55 years
- Smoking
- Male
- High animal fat diet
- Longstanding Gastro-Oesophageal Reflux Disease (GORD)
- Barrett's metaplasia of the oesophagus
- Previous gastric surgery
- Socio-economic deprivation
- Obesity/BMI >35
- Excess alcohol intake

Investigations that would be consistent with an increased risk of oesophageal cancer

- Endoscopy findings of long segment Barrett's (>3cm)
- Iron-deficient anaemia/low ferritin
- Elevated platelet count

UPPER GI CANCER - Pancreatic Cancer[19]	
If the patient presents ***with one or more*** of the following red flags, then the referral should be triaged as 'High Suspicion of Cancer'.	
Red flags	**YES or NO**
Painless obstructive jaundice	
Unexplained weight loss ***with one or more*** of the following: • new-onset diabetes • new onset mid-back discomfort • steatorrhoea • nausea/vomiting	

[19] **Risk factors for pancreatic cancer (which when present increases the suspicion):**

- Smoking
- Obesity/BMI >35
- Chronic pancreatitis, especially with mass
- Family history of first degree relatives with pancreatic cancer;
- Genetic syndromes (hereditary breast and ovarian cancer syndrome, familial melanoma, familial pancreatitis, hereditary non-polyposis colorectal cancer, Peutz-Jeghers syndrome, Von Hippel-Lindau syndrome)

Investigations that would be consistent with an increased risk of pancreatic cancer

- Cholestatic liver dysfunction
- New onset diabetes
- HbA1c>41 (pre-diabetes)
- Elevated CEA and/or Ca19-9

UPPER GI CANCER - Biliary/Gallbladder Cancer[20]	
If the patient presents ***with one or more*** of the following red flags, then the referral should be triaged as 'High Suspicion of Cancer'.	
Red flags	**YES or NO**
Painless obstructive jaundice	
Abdominal mass consistent with a gallbladder tumour	

[20] **Risk factors for biliary/gallbladder cancer (which when present increases the suspicion):**

- Polyps (>1 cm)
- Gallstones (>20 years)
- Porcelain gallbladder
- Primary sclerosing cholangitis

Investigations that would be consistent with an increased risk of biliary/gallbladder cancer

- Cholestatic liver dysfunction
- Ultrasound ± CT showing asymmetric wall thickening or mass in gallbladder or bile duct
- Elevated CEA and/or Ca 19-9

UPPER GI CANCER - Liver Cancer[21]	
If the patient presents with the following red flag, then the referral should be triaged as 'High Suspicion of Cancer'.	
Red flags	**YES or NO**
Upper abdominal mass consistent with enlarged liver ***and one or more*** of the following:	
• unexplained weight loss	
• jaundice	
• risk factor(s)	

21. **Risk factors for liver cancer (which when present increases the suspicion):**
- Previous history of bowel cancer
- Chronic viral hepatitis (B or C)
- Cirrhosis
- Heavy alcohol consumption
- Family history of primary liver cancer
- Haemachromatosis
- Inherited metabolic disease

Investigations that would be consistent with an increased risk of biliary/gallbladder cancer:
- US/CT/MR showing mass(es) in liver
- Elevated AFP and/or CEA and/or Ca 19-9
- Liver dysfunction including increased INR and decreased albumin