

The individual risk of cancer from birth to age 25 years is now 1 in 180, so whilst it may be regarded as an uncommon presentation in primary care, it is important that it is considered in a differential diagnosis in a child presenting with unexplained symptoms. Cancer is rarely preventable in childhood, but early identification is likely to reduce morbidity and mortality.

Table of findings that may be associated with a cancer diagnosis in childhood

Symptoms and signs which require referral have been suggested in the table below. However, there are many occasions when it is instead a pattern of symptoms and signs that point towards a diagnosis of cancer. Individual features alone are too imprecise. Additionally, children often cannot express symptoms clearly, and for this reason, the level of suspicion must necessarily be kept high. Telephone discussion with a paediatrician in cases where the need or timescale for referral is unclear is highly recommended.

GREEN: Reassuring features - consider watchful wait.

AMBER: Concerning features - consider referral or discussion with paediatrician.

RED: High-risk features - requires referral:

- Urgent referral (2 week wait)
- Very urgent referral (48 hours) e.g. paediatric rapid access clinic or acute paediatric service according to local service arrangements
- Immediate referral (telephone referral within a few hours) to acute paediatric service

	CONSIDER WATCHFUL WAIT	CONSIDER REFERRAL	REQUIRES REFERRAL
Ear, Nose and Throat		<ul style="list-style-type: none"> • Otorrhoea (persistent/recurrent otitis externa) • Persistent/recurrent bloody/purulent discharge from ear/nose • Obstruction of ear/nose 	<ul style="list-style-type: none"> • Swallowing difficulties (in absence of local cause) Very urgent referral (48hrs)
			<ul style="list-style-type: none"> • Abnormal mass within the nasopharyngeal space Immediate referral
Endocrine		<ul style="list-style-type: none"> • Polyuria/polydipsia • Delayed/arrested puberty • Abnormal growth 	<ul style="list-style-type: none"> • Precocious puberty • Galactorrhoea Urgent referral
Gastrointestinal		<ul style="list-style-type: none"> • Constipation not responsive to simple laxatives in appropriate dosage • Abdominal distension 	<ul style="list-style-type: none"> • Persistent vomiting on awakening Needs referral: urgency depends on length of history and associated symptoms/signs
			<ul style="list-style-type: none"> • Unexplained palpable abdominal mass Needs an urgent referral, and in many cases immediate referral if symptoms such as pain, hypertension, reduced urine output, rapid increase in size
Haematology		<ul style="list-style-type: none"> • Localised petechiae/bruising (unexplained) • Bleeding (unexplained) • Pallor • Fatigue (persistent) • Infection (recurrent, persistent or unexplained) • Generalised lymphadenopathy • Generalised bone pain (All should be offered a very urgent FBC and referral to paediatrics considered. Some children with these symptoms will need immediate referral) 	<ul style="list-style-type: none"> • Splenomegaly - either in isolation or in association with night sweats, weight loss, pruritus or fever Very urgent referral
			<ul style="list-style-type: none"> • Widespread petechiae/bruising Immediate referral
		<ul style="list-style-type: none"> • Unexplained hepatomegaly Immediate referral	

	CONSIDER WATCHFUL WAIT	CONSIDER REFERRAL	REQUIRES REFERRAL
Lymphadenopathy	<ul style="list-style-type: none"> • Clear infectious cause • <2cm • Responsive to antibiotics 	<ul style="list-style-type: none"> • Widespread distribution (offer very urgent FBC) • Abnormal consistency (firm or hard) • Non-mobile • Absence of pain 	<ul style="list-style-type: none"> • Persistent enlarged nodes >2cms for >6 weeks with no decrease in size • Supraclavicular site Urgent referral
			<ul style="list-style-type: none"> • Associated splenomegaly, night sweats, weight loss or pruritus Very urgent referral (48hrs)
			<ul style="list-style-type: none"> • Symptoms/signs of mediastinal mass • Associated bone pain Immediate referral
Musculoskeletal		<ul style="list-style-type: none"> • Night pain • Back pain • Pain limiting activities • Pain at rest • Unexplained or persistent generalised bone pain (offer very urgent FBC) 	<ul style="list-style-type: none"> • Unexplained enlarging mass • Soft tissue mass with local lymphadenopathy • Localised unexplained bone pain (consider very urgent x-ray alongside referral) • Ultrasound scan of a mass suggests soft tissue sarcoma or is uncertain and clinical concern persists • X-ray suggests the possibility of bone sarcoma Urgent referral
			<ul style="list-style-type: none"> • Limp with fever • Painful scoliosis Immediate referral
Neurology		<ul style="list-style-type: none"> • Headache with vomiting • Behaviour or personality change • Reducing school performance 	<ul style="list-style-type: none"> • Afebrile seizures Urgent referral
			<ul style="list-style-type: none"> • Increasing head circumference across centiles • Headache worse in the morning or waking from sleep • Persistent headache in a child <4years Very urgent referral (48hrs)
			<ul style="list-style-type: none"> • Abnormal gait • Abnormal coordination • Confusion or disorientation occurring with headache • New bladder or bowel dysfunction • Development regression • Focal motor or sensory abnormalities • Abnormal head position, such as wry neck, head tilt, or stiff neck Immediate referral
Ophthalmology			<ul style="list-style-type: none"> • Absent red reflex Urgent referral, but in infants very urgent referral (48hrs) appropriate
			<ul style="list-style-type: none"> • Proptosis • Abnormal eye movements • Blurred/double vision • Papilloedema Very urgent referral (48hrs) to ophthalmology and/or paediatrics
Renal			<ul style="list-style-type: none"> • New onset paralytic (non-concomitant) squint Immediate referral
			<ul style="list-style-type: none"> • Persistent unexplained microscopic haematuria • Hypertension (>95th centile, or for children aged 13 and over, >130/80). Severe hypertension needs immediate referral – see below. Urgent referral
Respiratory		<ul style="list-style-type: none"> • Frank haematuria • Severe hypertension (>95th centile +12mmHg or >140/90 – whichever is lower) Very urgent referral, but consider immediate referral if in association with abdominal mass, hypertension, abnormal renal function or other clinical concerns	<ul style="list-style-type: none"> • New wheeze/stridor with orthopnoea • Difficulty breathing with facial swelling • Mediastinal widening on chest radiograph Immediate referral
			<ul style="list-style-type: none"> • New/changed wheeze/stridor in absence of typical history for asthma/viral induced wheeze
Miscellaneous		<ul style="list-style-type: none"> • Genetic cancer predisposition syndromes • Strong family history of malignancy • Repeated presentation to health professionals • Severe or persistent cradle cap • Unexplained weight loss • Abnormal growth • Blood-stained vaginal discharge • Persistent parental/patient concern or anxiety about symptoms, even if the symptoms are most likely to have a benign cause 	<ul style="list-style-type: none"> • Testicular mass Very urgent referral (48hrs)