

Childhood Cancer



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SEPTEMBER 2011

Childhood cancers presenting /year in the UK

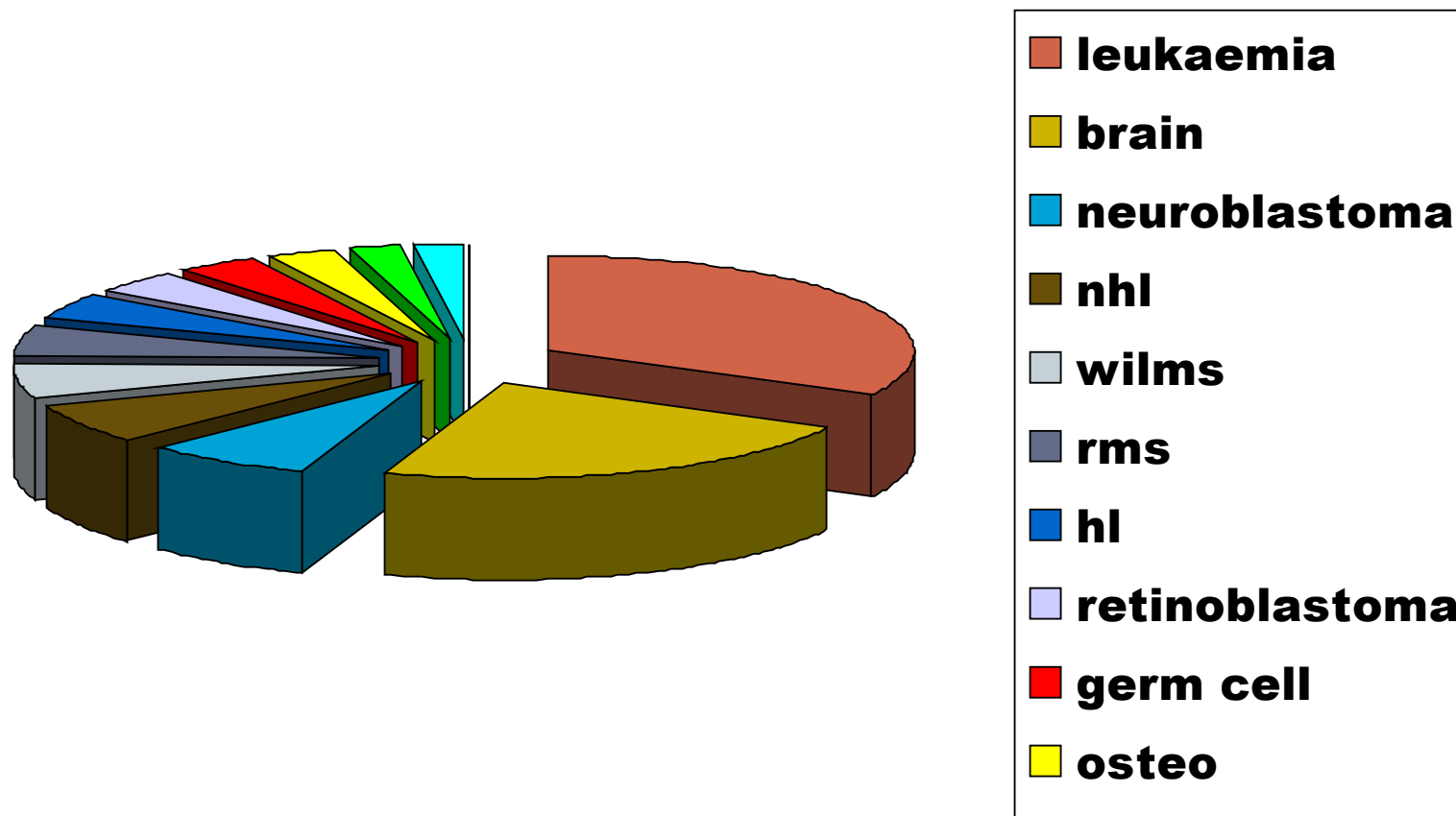
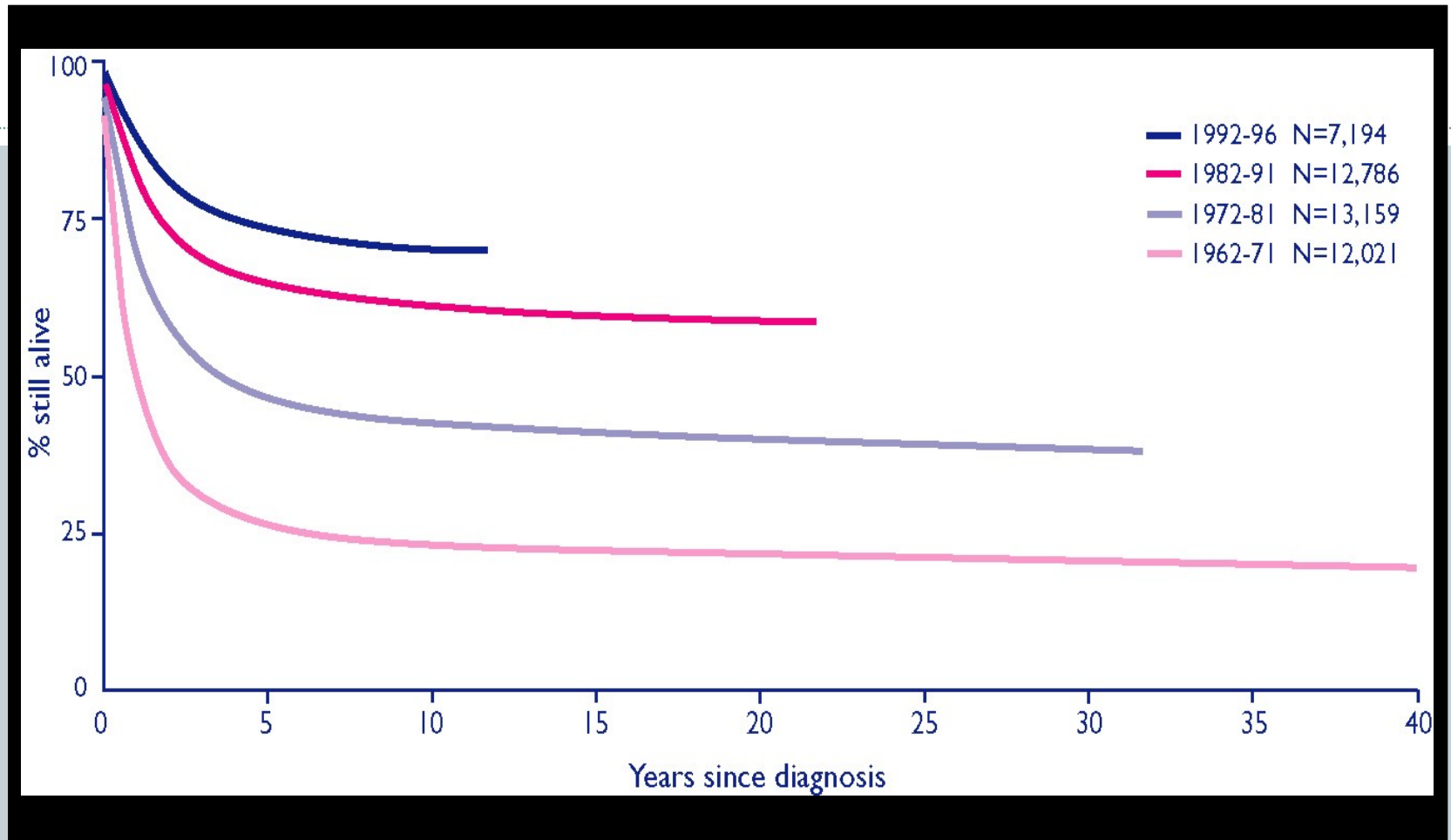
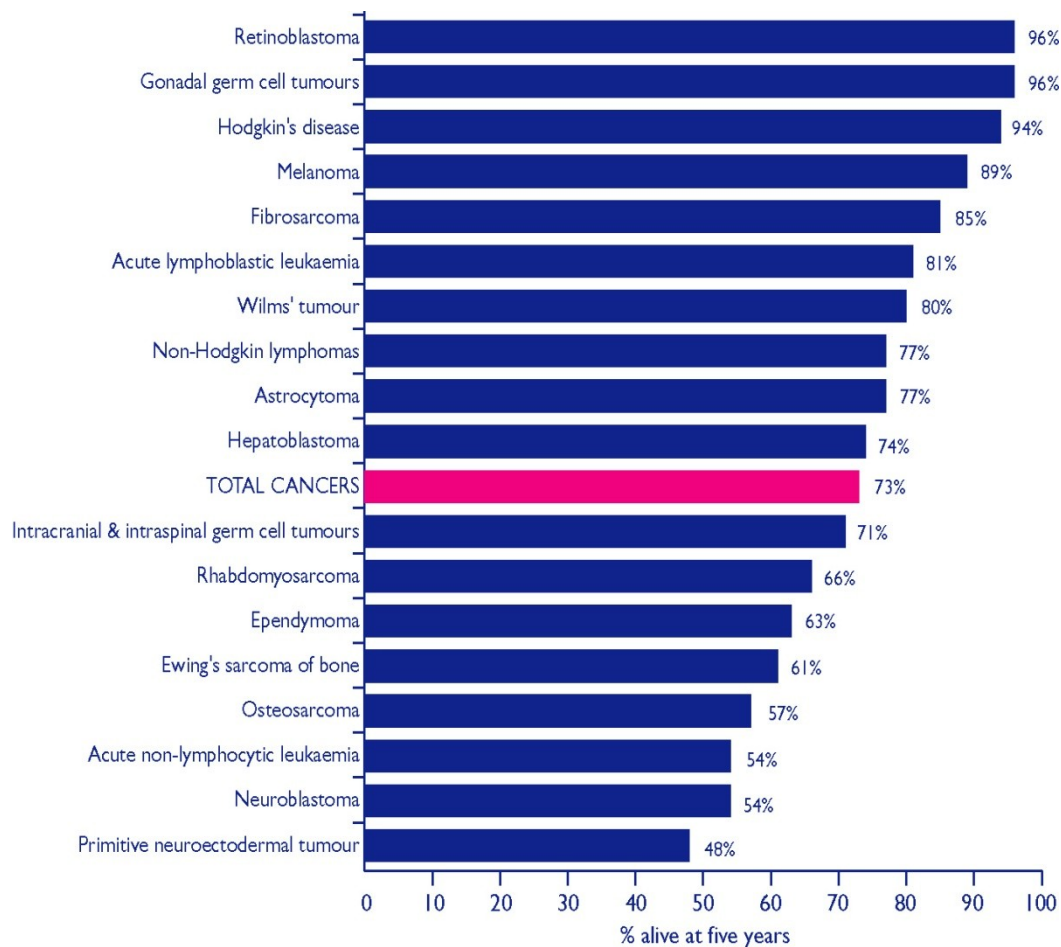


Figure Eight: Survival of childhood cancer patients diagnosed in successive periods, Great Britain, 1962-96



Percentage of patients still alive five years after diagnosis, childhood cancers, Great Britain, 1992-96



Paediatric cancers are very different to adult cancers



PAEDIATRIC

- Mesenchymal/neural
- Not recognised at pre-malignant phase
- Not environmental
- Minimal impact of screening/prevention
- Historically high clinical trial accrual rates
- **MOST PATIENTS ARE CURED**

ADULT

- Epithelial
- Prolonged pre-malignant phase
- Environmental causes
- Screening/prevention v. important
- Poorer clinical trial accrual rates
- Most patients ultimately die

Children's Cancers FACTS



- Rare: 0.5% of all cancers
- Incidence 120 new cases per million children or 1 child per 600 by age 16 years
- Incidence increasing 0.5%/year
- Main cause of death in children aged over 1 year
- 90% UK children treated by a CCLG centre (21)
- Improved survival rates with centralisation of care (Stiller 1988)
- National well defined recommendations for standards of care and resource provision

(CSAG 1993, RCPATH 1996, SBNS 1997, NICE IOG 2011)



TVCN

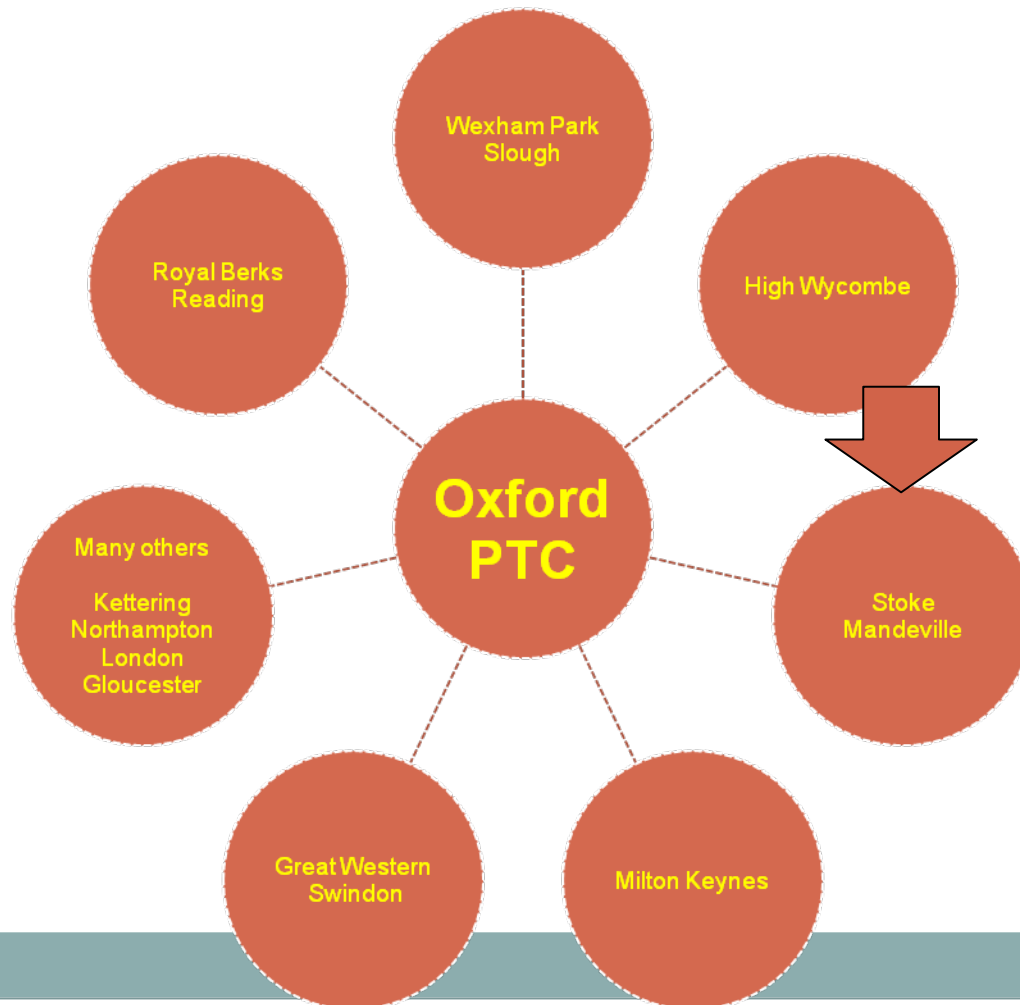
Oxford Paediatric Haematology & Oncology Unit

- Currently new patients 90-100/year
- Increasing haematology referrals
- Single site JR apart from RT at Churchill Hospital
- Well established referral pattern into Oxford from 5 shared care units
- 4 TVCN paediatric TSSG meetings per year & annual study day
- Commissioner chair from 2011

- 2 centres within South Central SHA – Oxford & Southampton
- Both units supported by SC SHA specialist commissioners following CYPIOG review 2007/8 and subsequently for TYA provision
- Peer Review 2011

TVCCN

Oxford as PTC and POSCUs Lead consultant , Oxford MDT & Local MDT



TEAM

- 5 consultants
- 2 staff grades, 1 associate specialist
- SpR 1-2
- Pharmacists
- 2 Sisters IP and Day care
- POONs
- Ward Staff
- Social workers
- Teachers
- Research Team 3
- MDT coordinator
- Clinical oncologists, radiologists, “many” surgeons, pathologists

Multidisciplinary Team



Meetings



- Patient Business meetings 2/week
- MDTs
 - Solid 2 /month,
 - CNS weekly,
 - Haematology weekly,
 - Sarcoma weekly NOC
 - TYA 2 weekly
- Psychosocial weekly
- X Ray weekly
- Senior Staff meetings monthly
- Clinical care meetings 2 monthly
- Teaching weekly
- Clinical Trial 2/month
- Journal club 2 weekly

Successes 2010

- Established Clinical Trials Team with open portfolio of clinical trials including tissue bank
- Established functioning IOG compliant MDTs
 - Solid Tumour
 - Neuro oncology
 - Haematology
 - Late Effects being developed
- Dedicated teaching programme
- Parent user group meetings established
- Excellent patient/parent satisfaction survey

Work Load 2010



● Leukaemia	24	
● Sympathetic Nervous System	7	
● Malignant Bone Tumours	4	
● Brain and Spinal Neoplasms	25	
● Soft Tissue Tumours	8	
● Germ Cell and Gonadal	3	
● Renal Tumours	3	
● Lymphoma	4	
● Other	5	
● Malignant Other	2	
● Total		85
● Non Malignant	30	

Work Load 2010



● Relapses		
○ Leukaemia		5
● Transplants		
○ Autografts		3
● Deaths		
○ Leukaemia		3
○ Sympathetic Nervous System	4	
○ CNS		7
○ Lymphoma		1
○ Other		2
○ Total		17

Successes 2010 IOG I/R



- Documentation
- Paediatric Haematology and Oncology ORH intranet documents complete
- Paediatric pharmacy group a sub group of MAC
- Weekly CVL list
- Psychological support improved
- Established key worker role
- All IT chemotherapy transferred to Oxford April 2010 from POSCUs

Successes 2010



- Patient satisfaction survey (annual)
- Patient outcome satisfactory when compared to national outcome data
- Audits
 - Antibiotic documentation
 - Echo use
 - CVL infections
 - Discharge documentation
- Teaching
- Closer collaboration with Helen House

NICE GUIDELINES issued July 2004



Referral for suspected cancer

Key Priorities



- Cancer is uncommon in children, and its detection can present particular difficulties. Primary healthcare professionals should recognize that parents are the best observers of their children, and should listen carefully to their concerns. Professionals should also be willing to reassess the original diagnosis or to seek a second opinion from a colleague if a child fails to recover as expected

General Recommendations



- Multiple presentations with the same problem and no clear diagnosis
- Parent knows best...Ix with persistent parental anxiety
- Persistent back pain can be a symptom of cancer and needs Ix

? Leukaemia refer immediately



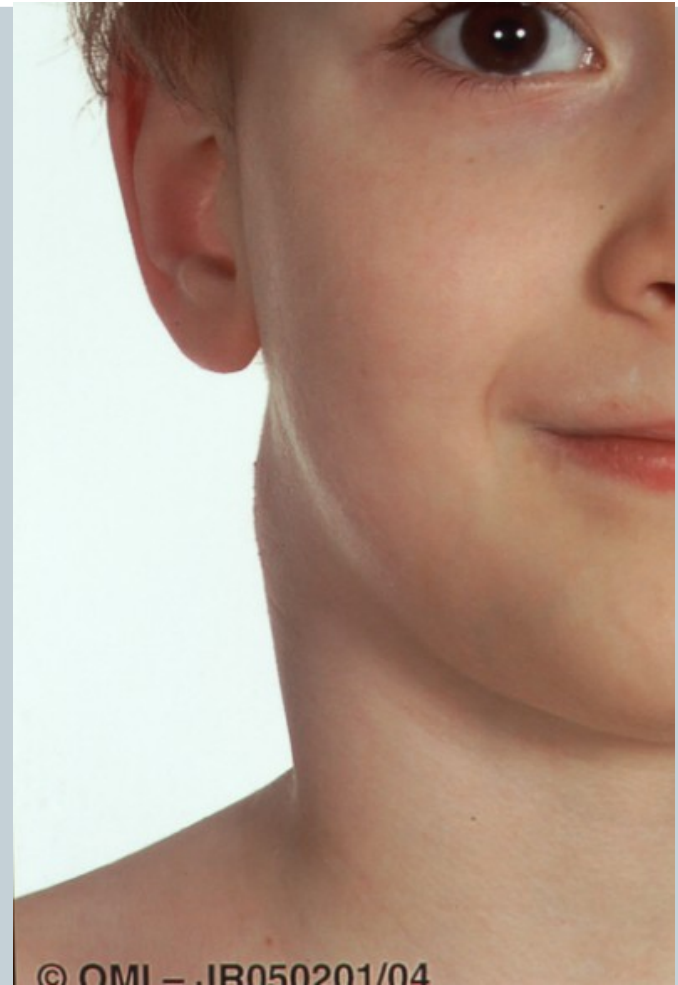
- Unexplained petechiae
- Hepatosplenomegaly

? Leukaemia FBC needed



- Pallor
- Fatigue
- Irritability
- PUO
- Persistent/recurrent URTI's
- Generalized L/Nop
- Persistent/unexplained bone pain
- Unexplained bruising

Lymphadenopathy



Lymphoma



- When to refer lymphadenopathy?
 - Non tender firm.hard
 - Size>2cm
 - Enlarging
 - Others signs ill health,fever,wt loss
 - Involves AXILLARY nodes or supraclavicular nodes
 - Mediastinal or hilar mass on CXR
 - **Associated hepatosplenomegaly and/or SOB**

Bone sarcomas



- Limbs most common sites (esp knee in OS)
- **PERSISTENT BONE PAIN** and **SWELLING** needs an Xray and referral
- Do not assume a hx of injury explains the above
- Pain at rest, back pain and unexplained limp are all suspicious symptoms

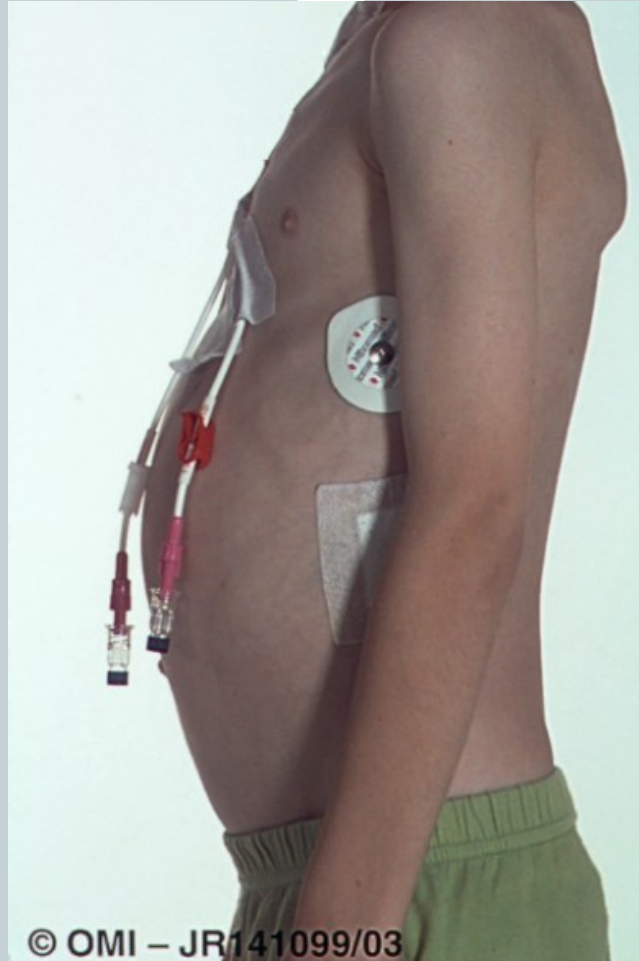


Wilms' Tumour

- Painless abdominal mass
- Haematuria



WT O



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Sarcoma soft tissue 1



- Refer if
 - Deep to the fascia
 - Non tender
 - Enlarging
 - Associated regional L/nopathy
 - >2 cm



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Soft Tissue Sarcoma 2



● Head and Neck

- Proptosis
- Unilateral nasal obstruction/discharge
- Unexplained bleeding
- Aural polyps

GU tract

- urinary retention
- scrotal swelling
- bloodstained vaginal discharge



Neuroblastoma



- **The mimic**

- Pallor
- Fatigue
- Irritability
- PUO
- L/Nop
- Persistent /unexplained bone pain
- Bruising
- Back pain
- Leg weakness
- Sphincter disturbance
- proptosis



Brain and CNS < 2 years



● Immediate referral

- Seizures
- Extensor attacks
- Persistent vomiting

● Urgent referral

- Abnormal increase in OFC
- Motor development delay/arrest
- Altered behaviour
- Abnormal eye movements/lack visual following
- Poor feeding/FTT

Retinoblastoma



- **Urgent referral**

- White pupilliary reflex(leukocoria)

- **Refer**

- New squint
- Visual acuity change
- Family history

Retinoblastoma



Child with Retinoblastoma



Brain and CNS > 2 years



- Full neurological examination with
 - Persistent headache and vomiting
 - Early am headache and vomiting
 - Neurological symptoms and signs
 - Seizures
 - Cranial n abnormalities
 - Visual disturbances
 - Motor/sensory signs
 - Deteriorating school performance
 - Behaviour/mood disturbance

Headsmart be brain tumour aware

launched June 2011



- 10 children and young people a week are diagnosed with a brain tumour
- Early symptoms and signs may be difficult to recognise
- Early detection can improve the outcome with reduced mortality and less long term morbidity
- This is a dedicated campaign to increase public awareness

The Diagnosis of Brain tumours in children (RCPCH guidance 2008)

Delphi consensus of:

- symptoms and signs
- indications for imaging
- waiting times for imaging

Main Target Audience:

- ✓ RCPCH
- ✓ RCGP
- ✓ RCR
- ✓ Emergency Medicine
- ✓ College of Optometrists
- ✓ R C Ophthalmologists
- ✓ NHS Evidence criteria
- ✓ NICE diagnostic guidance approval in process

The Diagnosis of Brain Tumours in Children

An evidence-based guideline to assist healthcare professionals in the assessment of children presenting with symptoms and signs that may be due to a brain tumour

Quick Reference Guide
endorsed by the RCPCH

Version 3: March 2011





HEADSMART
be brain tumour aware

Public Awareness



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Professional Awareness



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Enhance the experience of consultation

