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( )

( )

( metastasis )

( benign tumor )

( Malignant tumor )

( deoxyribonucleic acid )

( DNA . . . )

)

(

(

)

( genes )

( Proto-oncogenes )

( Mutation )

)

( Tumor suppressor genes )

(

( Chromosomes )

( Translocation )

)

(

( additions )

( inversion )

(

)

( deletion )



( Risk factors )

( )

)

(

:

( Beckwith-Wiedemann syndrome )

( Wiskott-Aldrich syndrome )  
( Li-Fraumeni syndrome )

( Epstein-Barr virus EBV )

( )

( HIV )  
( mononucleosis )

:

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:



( )

( Survival rates )

( prognosis )

( epithelial )

( acquired )

( )

( )

( ) ( )

( neuroblastoma )

Acute Lymphoblastic leukemia	
Acute myelogenous leukemia	
Hodgkin's disease	
Non Hodgkin's lymphoma	
Neuroblastoma	
Rhabdomyosarcoma	
Osteosarcoma	
Retinoblastoma	
Soft tissue Sarcoma	
Ewing's family of tumors	
Wilms' tumor	
central nervous system & Brain tumors	

%3

( Retinoblastoma )

( Rhabdomyosarcoma )

( )

(

)  
( Osteosarcoma )



( Staging )

( Grading )

( biopsy )

Computed )

( tomography scan  
( Magnetic resonance imaging)

.( )

---

.( staging )

( Grading )

( prognosis )

( favorable prognosis )  
( unfavorable prognosis )

( Grading )

( differentiation )

( undifferentiated )  
( high-grade tumor )

( well-differentiated )  
( low-grade tumor )

- :
  - :( GX ) •
  - .( Undetermined grade )
  - :( G1 ) 1 •
  - ( Moderately ) : ( G2 ) 2 •
  - .( Intermediate grade )
  - ( Poorly differentiated ) : ( G3 ) 3 •
  - ( Undifferentiated ) : ( G4 ) 4 •

( Staging )

- :
  - :( Clinical-diagnostic staging ) •
  - :( Surgical-evaluative staging ) •
  - :( Post-surgical-treatment pathologic staging ) •

:( Re-treatment staging )



:

( Radiation therapy )

( Chemotherapy )

( Bone marrow transplantation )

( Immunotherapy )

( stem cell transplantation )

( systemic )

( Neoadjuvant )

.( adjuvant )

:

( catheters )

( Intrathecal )

.( Ommaya reservoir )

)

(

)

(

)

.(

( ionizing radiation )

( external ) ( Internal )

( neoadjuvant therapy )  
( adjuvant therapy )

:

.( )

( Bone marrow transplant )

)

( hematopoietic cells

( Stem cells )

( )

( )

( Bone marrow transplant )

( Stem cells transplant )

)

(

( Autologous )

( Allogeneic )

( human leukocyte antigens HLA )

( peripheral stem cells )

.(

)

( Biological therapy )

( biological response modifier therapy )

:

:( Nonspecific immunotherapies )

( biological response modifiers BRMs )

( interferons )

( interleukins )

( cytokines )

.( colony-stimulating factors )

( growth factors )

( stem cells )

:( specific immunotherapies )

( Cancer vaccines )

( Monoclonal antibody therapy )

( 5-year survival rates )

)

(

( prognosis )  
( staging )

( Grading )

: 1990

( Granulocyte colony stimulating factor G-CSF )

( Neupogen )

•

1991

( )

( Erythropoietin )

•

( Interferon alfa )

•

( interleukin-2 IL-2 ) 2

•

( )

( Magnetic resonance imaging MRI )

•

.1991

1990

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1993





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( " " )

( chickenpox )

( )

38.5

( )

( Echocardiogram )



( acetaminophen )

.( )



2010-06- 30 :

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منشورات جمعية آدم لسرطان الطفولة

<http://www.adamcs.org>