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(metastasis)

(benign tumor)

(Malignant tumor)

(deoxyribonucleic acid)

(DNA . . .)

)

(

(

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(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)

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(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)

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(

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(

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.(

(ionizing radiation)

(external) (Internal)

(neoadjuvant therapy)
(adjuvant therapy)

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(Bone marrow transplant)

)

(hematopoietic cells

(Stem cells)

()

()

(Bone marrow transplant)

(Stem cells transplant)

)

(

(Autologous)

(Allogeneic)

(human leukocyte antigens HLA)

(peripheral stem cells)

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(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

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(Erythropoietin)

(Interferon alfa)

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(interleukin-2 IL-2) 2

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(Magnetic resonance imaging MRI)

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1993



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(chickenpox)

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(Echocardiogram)

(acetaminophen)

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2010-06- 30 :

منشورات جمعية آدم لسرطان الطفولة

<http://www.adamcs.org>