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#### PEDIATRIC ONCOLOGY IN THE NETHERLANDS: SHARED CARE

PROF.DR. GERTJAN KASPERS, PEDIATRIC ONCOLOGIST PROJECT DIRECTOR, PRINCESS MÁXIMA CENTER





Prof.dr. Gertjan Kaspers Education & Training, outreach, shared care







- Rare: 550 new cases (0-18 yr) per year
- Each type typically <20 cases/year</p>
- Scattered: 7 centers
- Survival 75%
- Most frequent cause of death in childhood
- Morbidity and poor quality-of-life
- Late effects of treatment



#### **Volume matters**



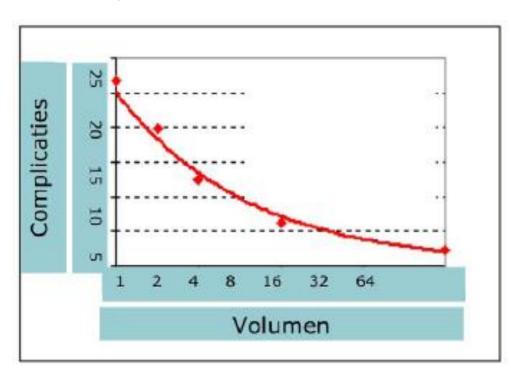
Higher volume of high-complex interventions:

More successful treatment and less complications

"higher volume = better outcome"

## Size matters: Inspection of Health Care and Ministry of Health, may 2010





Learning curve for high-complex interventions:

<20 very steep

20-100 steep

>100 flat(ter)

Cut-off for concentration: 20 cases / year / team



#### Future? 2005 - 2014

- Concentration of complex treatment and research: critical mass for top care and top research
- Initiative of professionals and parents organisation:
  Cooperation:

Single Dutch Childhood Oncology Center Princess Máxima Center for Pediatric Oncology

- European center of excellence
- Ward within WKZ/UMCU opened October 20, 2014
- Certain solid tumors (20% of total Dutch population)



#### New hospital



- Not isolated but connected to partner institute
- Independent expert committee to advise on location
- Criteria:
  - Other pediatric subspecialisms and facilities
  - Adult cancer center
  - Research institute
  - Accessibility, location
  - Willingness to collaborate/share

#### Partners:

- UMC Utrecht/Wilhelmina Children's Hospital Utrecht
- Netherlands Cancer Institute/AVL

#### From principles to building design

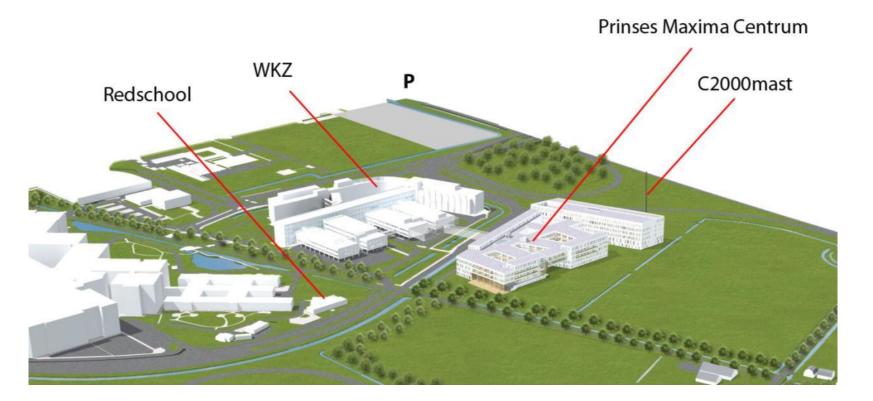




Location





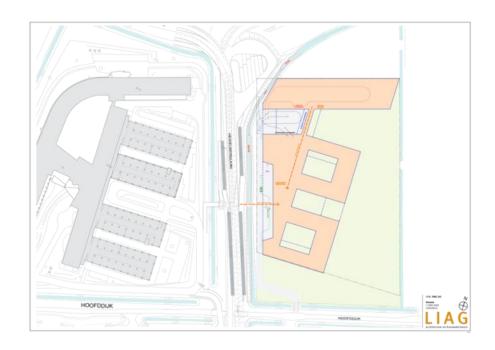


#### Four units

- Hemato-oncology
- Neuro-oncology
- Solid tumors
- Late effects
- Research

- 75 85 hospital beds
- 20-25 daycare beds
- 800-900 patients in treatment annually





#### **Ambition:**



- >90% cure
- <50% of patients having late effects</p>
- Improved palliative care

Nr 1 pediatric oncology center of Europe, top 5 globally

#### Concentration

Prinses MÁXIMA
centrum voor kinderoncologie

- From 7 centers to 1 for complex care
- No merge; new center in Utrecht
- Collaboration with UMC Utrecht/Wilhelmina Children's Hospital: sharing resources, personnel and facilities
- Collaboration with other UMCs & AVL

Shared care



# Prinses MÁXIMA centrum voor kinderoncologie

#### Shared care

Centralised care if necessary, local care when possible

 Central: classifying diagnostics, treatment plan, tumor surgery, radiotherapy, complex chemotherapy, immunotherapy, transplantation, early clinical trials

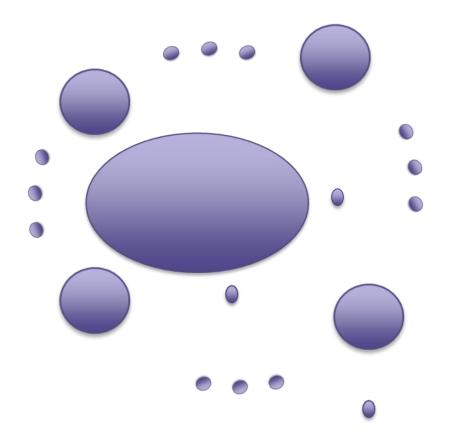
 Local: less complex parts of treatment including supportive care and chemotherapy in 15 shared care hospitals plus 4 shared care UMCs

Shared care supervised by Princess Máxima Center





#### Shared care model



#### **Challenges:**

- Each hospital legal entitity, but care must be one process
- Procurement of total care process by Princess Máxima Center
- Mutual services between Princess Máxima Center and shared care hospitals
- Communication, efficient exchange of crucial data

## Communication & data-/information exchange



- Who, what, when, how
- Care; clinical trials; research
- Privacy issues
- Electronic Patient File: one (?) for each patient ...
- Data-definition / data-management issues
- Phone, fax, e-mail, letters vs. conferencing, interoperability

#### Professionals involved



- General physician
- Pediatric oncologist
- Other specialists (surgery, radiology, radiotherapy etc.)
- Case manager
- Pediatrician/pediatric oncologist in shared care center
- Nurses in Princess Máxima Center and in shared care hospital
- Home care team members
- Members of the Psycho Social Team
- Members of the Educational Team
- etc etc etc

#### Data set (to be developed):



- patient identification
- test results & images
- treatment itself: distributed protocol/treatment planning
- medication prescription, preparation & admission
- surgery
- efficacy
- toxicity
- suited to responsibilities contracter & subcontractor

-

#### Conclusion



- Care centrally if complex, closer to home whenever possible
- Innovative in care, research and organisation
- The very best for patient, family and employees
- European Center of Excellence
- Communication and data exchange: a complex challenge

