

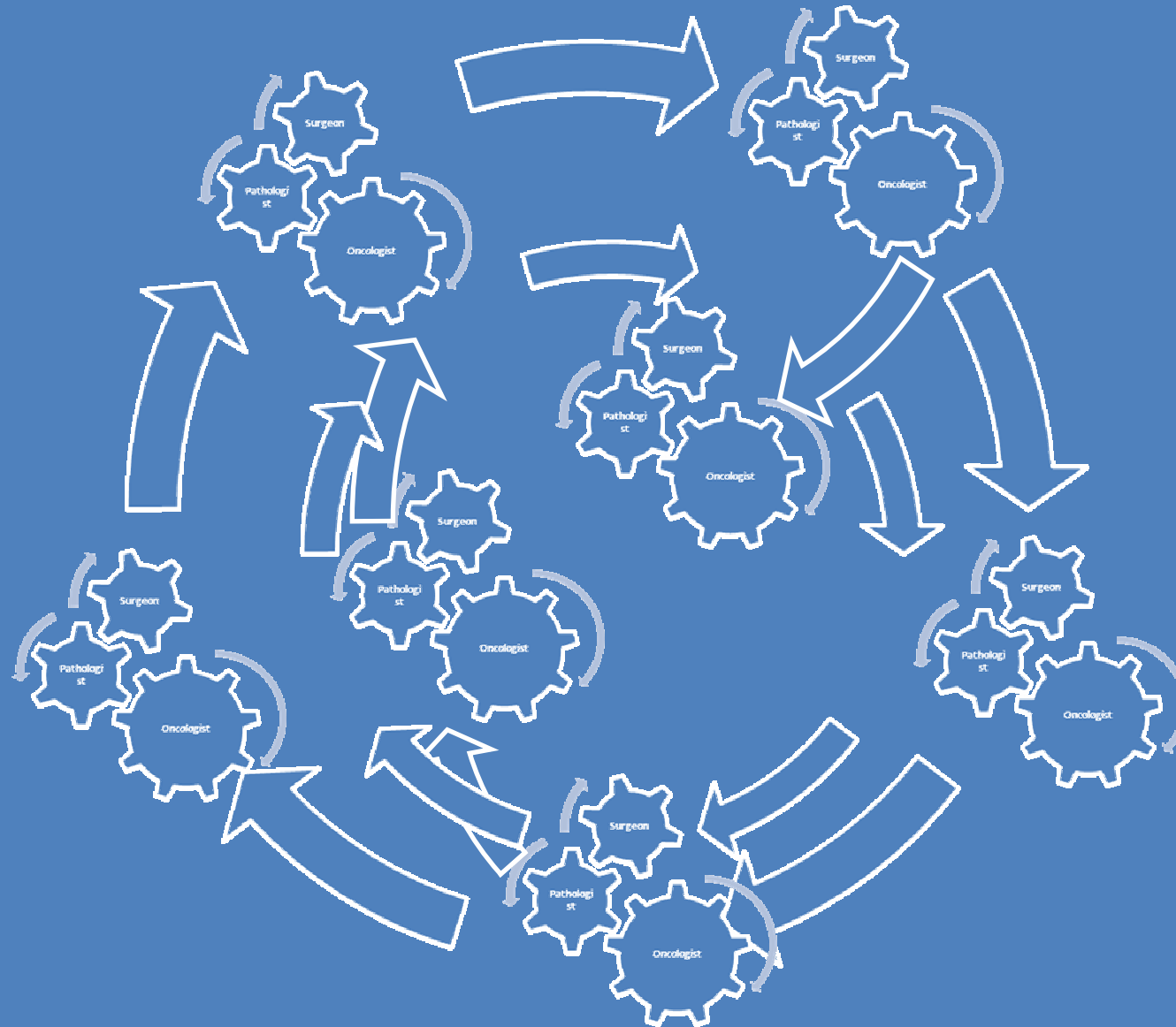
# Management of Wilms' tumor in developing countries

8th INCTR Meeting, Antalya March 22 – 24

# Multidisciplinary Approach



# Multicenter Approach



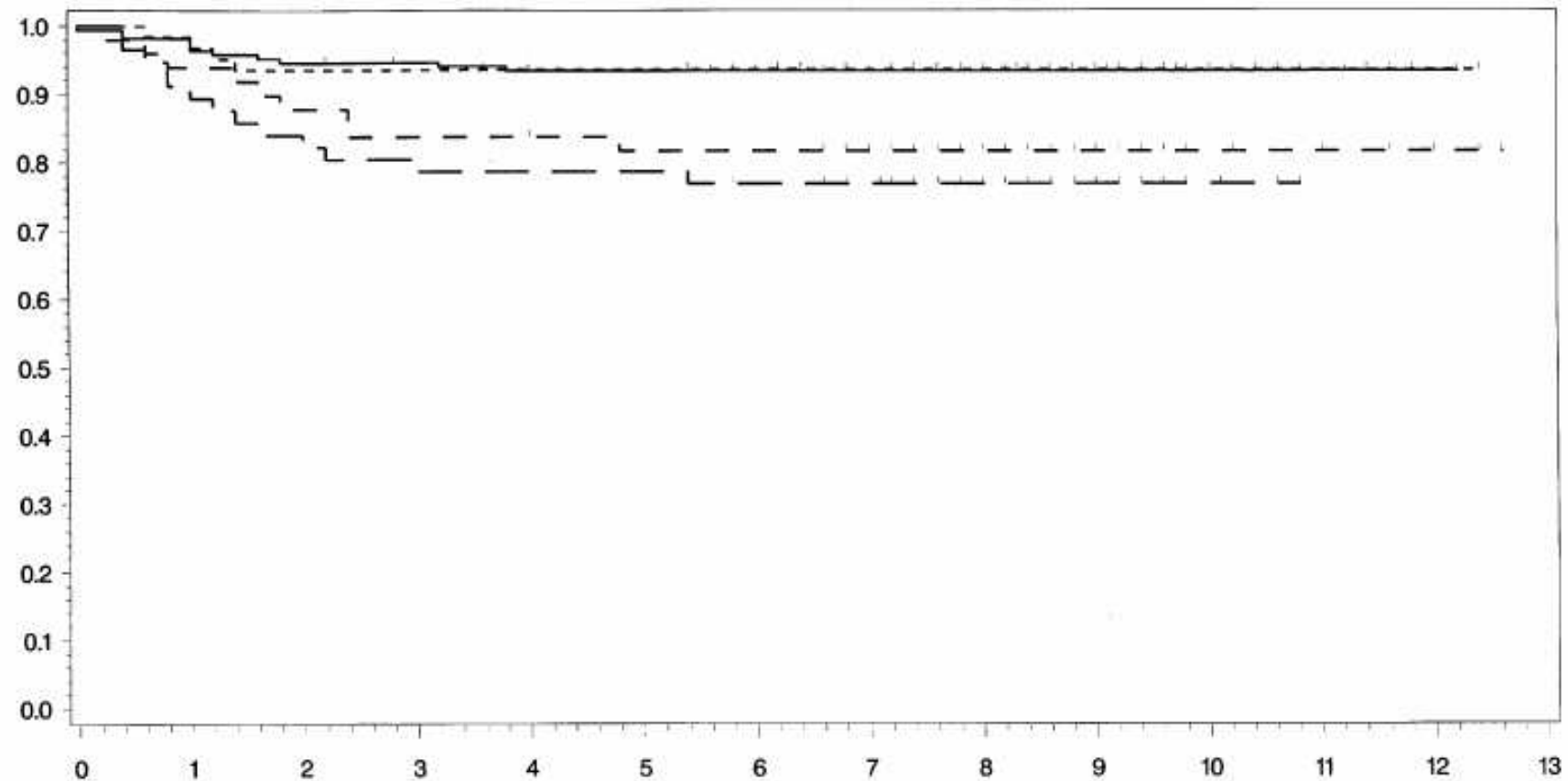
# Treatment Approaches

- **NWTS Trials**

Immediate Nephrectomy followed by chemo, XRT.

- **SIOP Trials**

Pre-op chemo followed by surgery and further chemo and XRT



	N	# deaths	5-year survival	95%-CI	years
— Stage I	167	11	93.4%	89.6 - 97.2	
..... Stage II	62	4	93.5%	87.4 - 99.7	
--- Stage III	49	9	81.6%	70.7 - 92.4	
---- Stage IV	56	13	78.6%	67.8 - 89.3	

Log rank trend test:  $p = 0.0002$

**Figure 5.** Survival by stage in unilateral nephroblastoma treated with preoperative chemotherapy.

**Lack of resources**

- Lack of specialist
- Lack of nurses
- Low availability of radiotherapy
- Expensive chemotherapy

- Malnutrition
- Malaria
- HIV

**Co-morbidity**

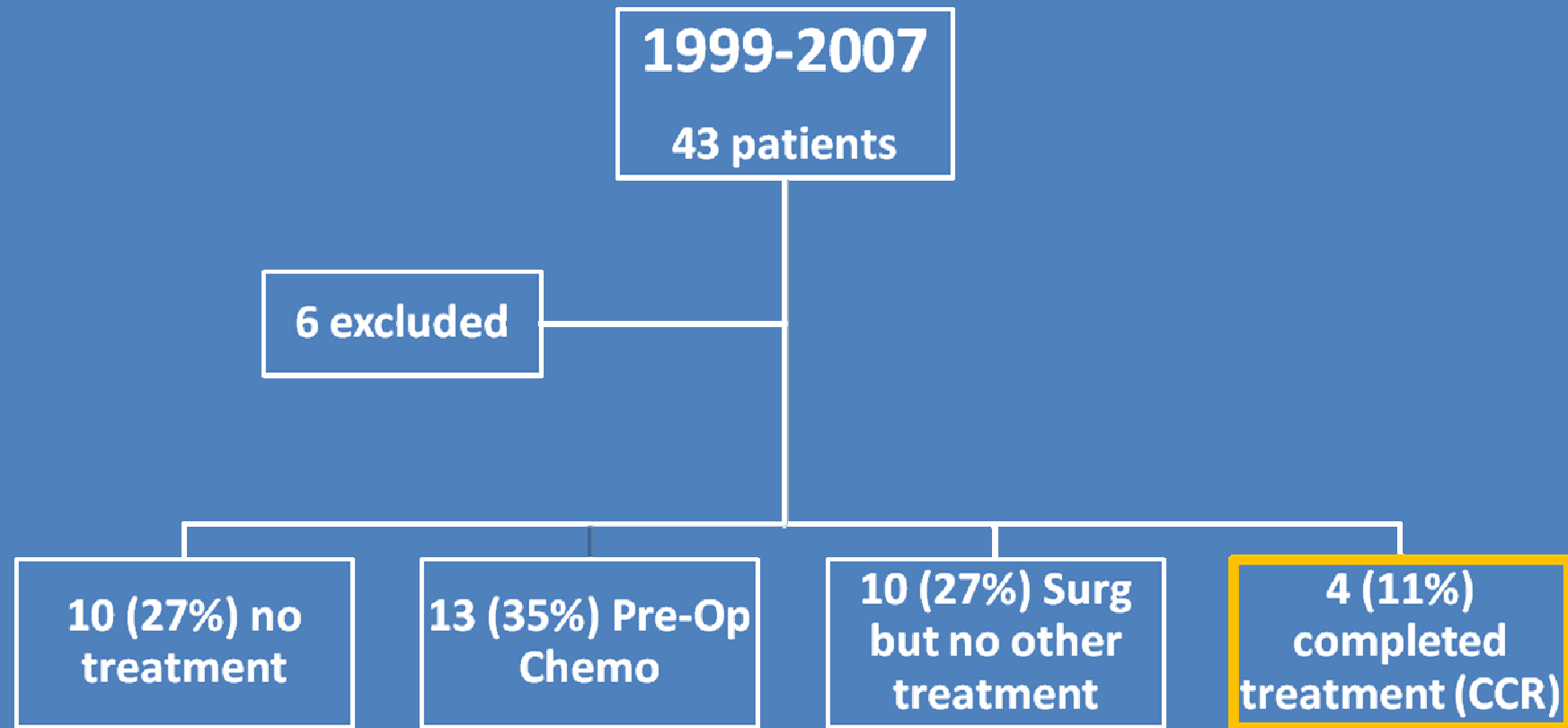
**Advanced diseases**

- Cultural beleaves
- Poor access
- Bad communication system

# Wilms Tumour in Sudan

D.O. Abuidris

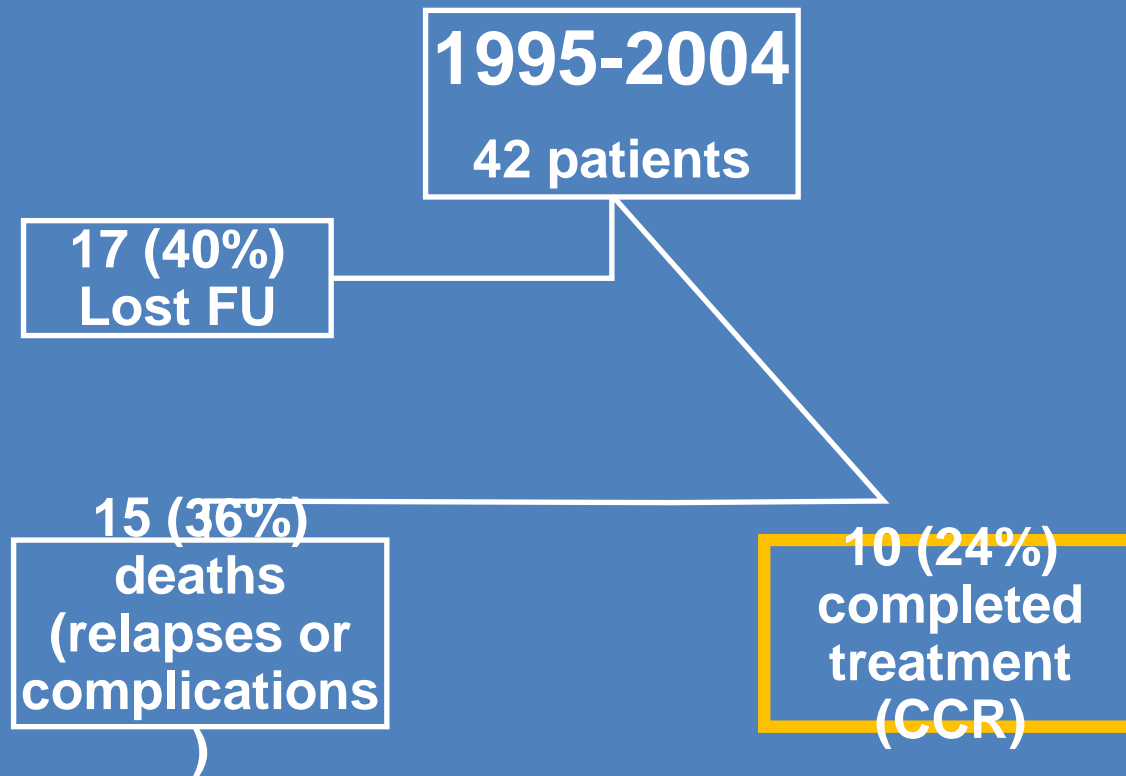
Pediatr Blood Cancer 2008;50:1135–113

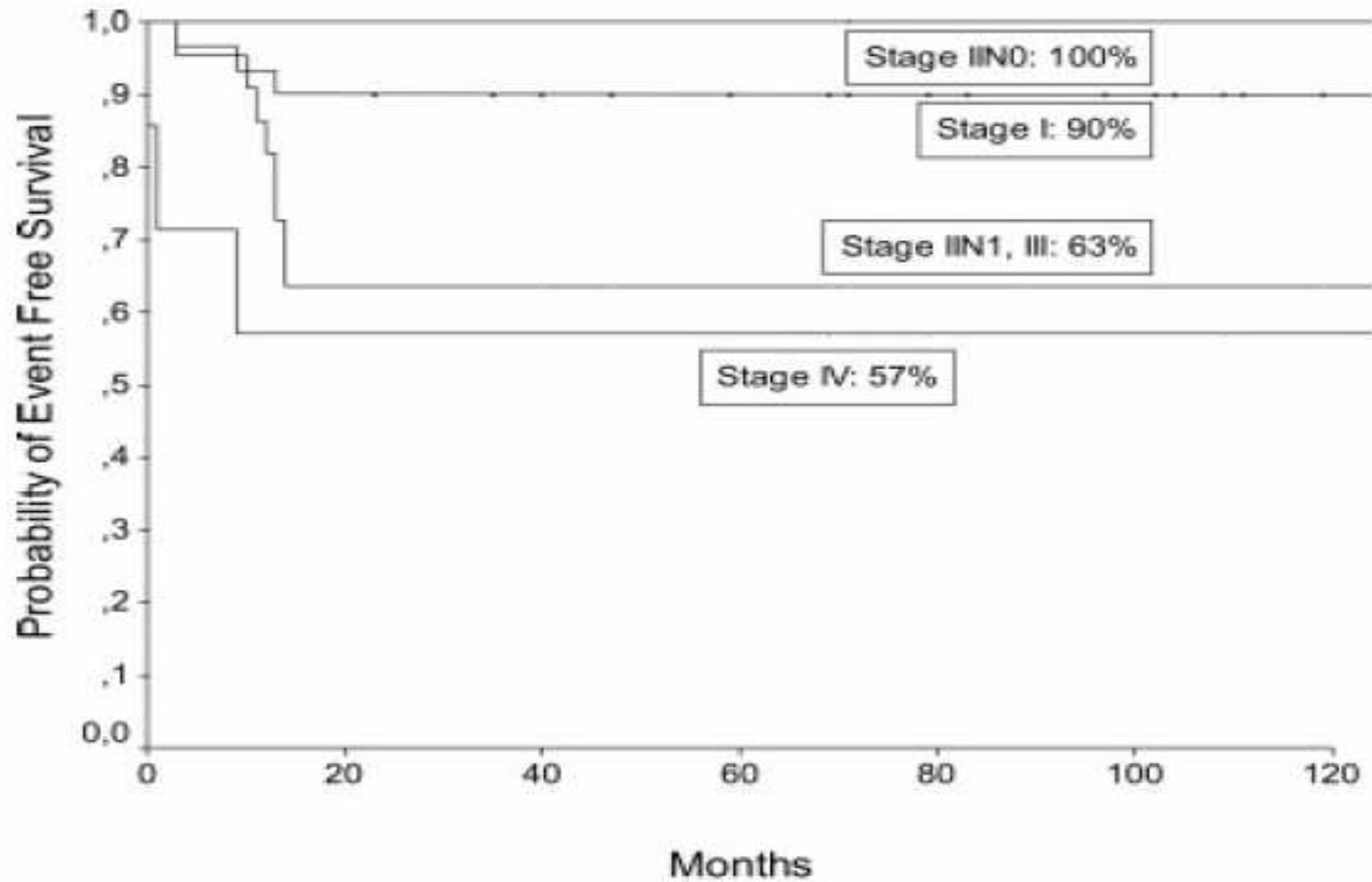


# Wilms Tumour in Nigeria

S. O. Ekenze

Annals of Oncology 2006,17: 1598–1600





**Fig. 1.** Event-free survival according to stage.

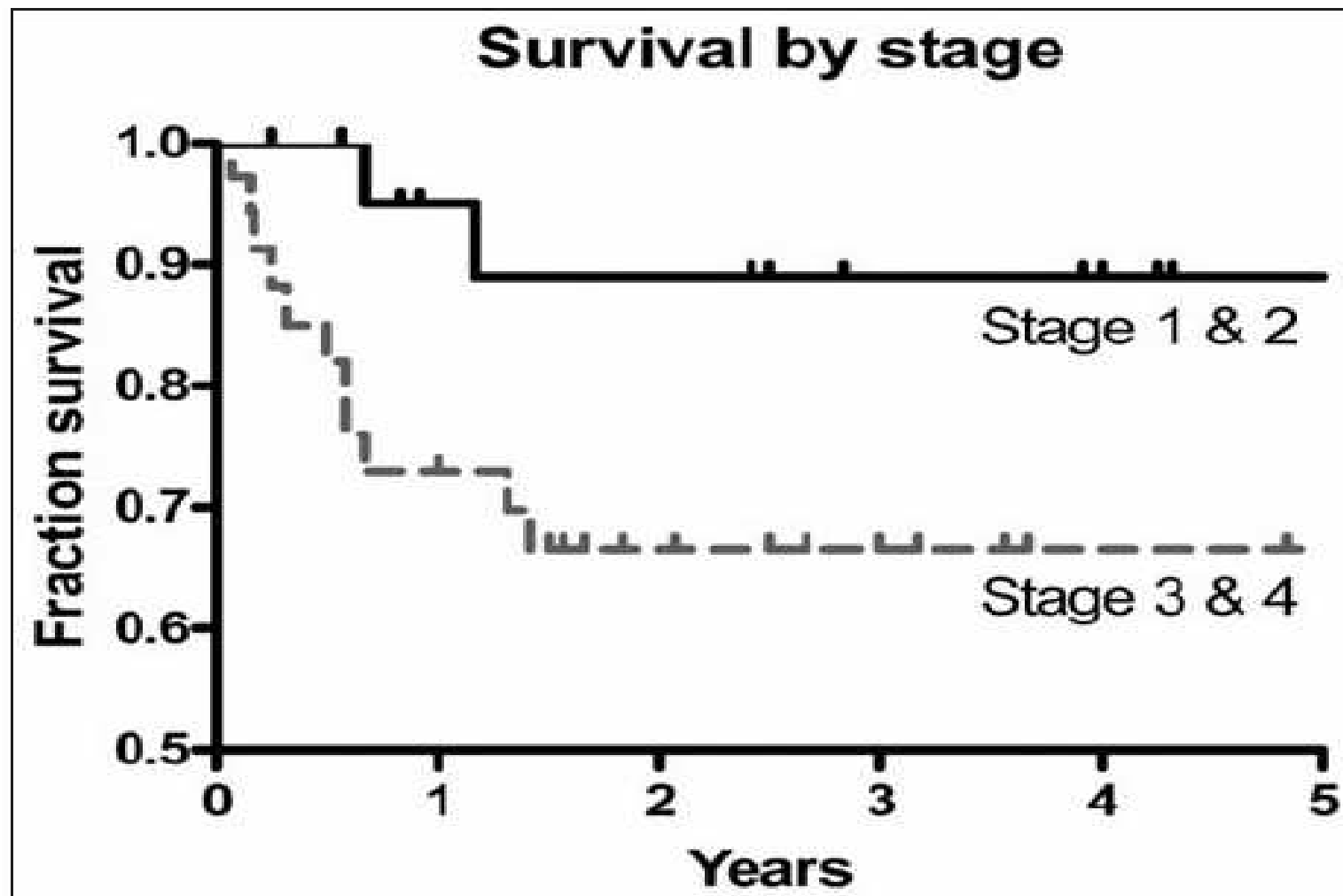


Fig. 1 Survival of children with nephroblastoma treated in Johannesburg 1998 to 2003.

# Twinning/International Support

St Jude  
Child.  
Res.Hosp.

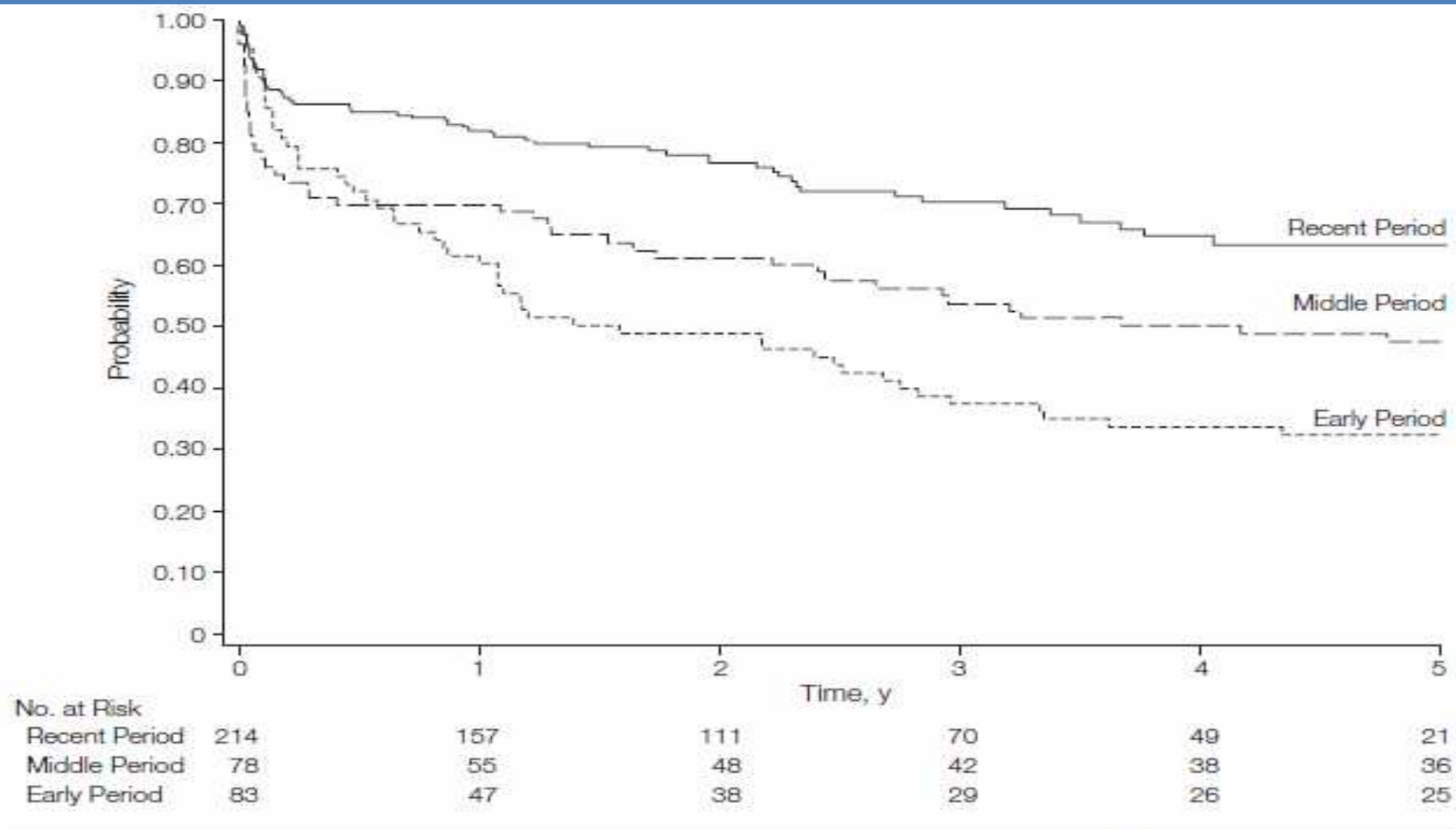
SIOP

Monza-  
Nicaragua

INCTR

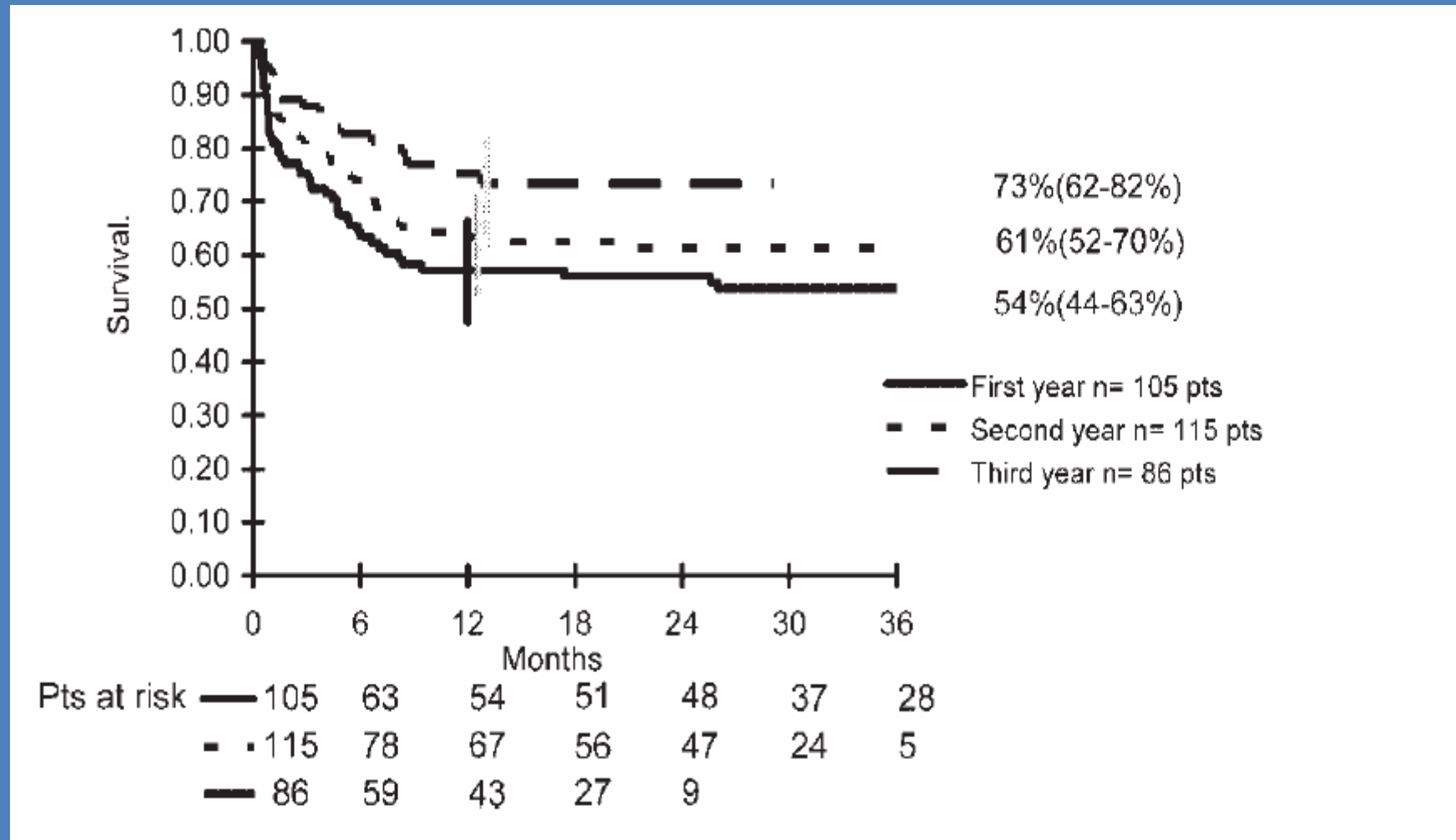
GFAO  
P

# ALL, Recife, Brazil



The 5-year event-free survival estimate was 32% (95% confidence interval [CI], 21%-43%) in the early period (1980 to 1989), 47% (95% CI, 36%-58%) in the middle period (July 1994 to March 1997), and 63% (95% CI, 55%-71%) in the recent period (April 1997 to December 2002).

# B-Cell lymphoma, GFAOP



# Twinning/International Support

Hospital/Government support/Local NGOs

International support

Local leadership



# TREATMENT OF NEPHROBLASTOMA IN AFRICA

French African  
Pediatric Oncology Group Study

# French-African Pediatric Oncology Group

Creation : October 2000

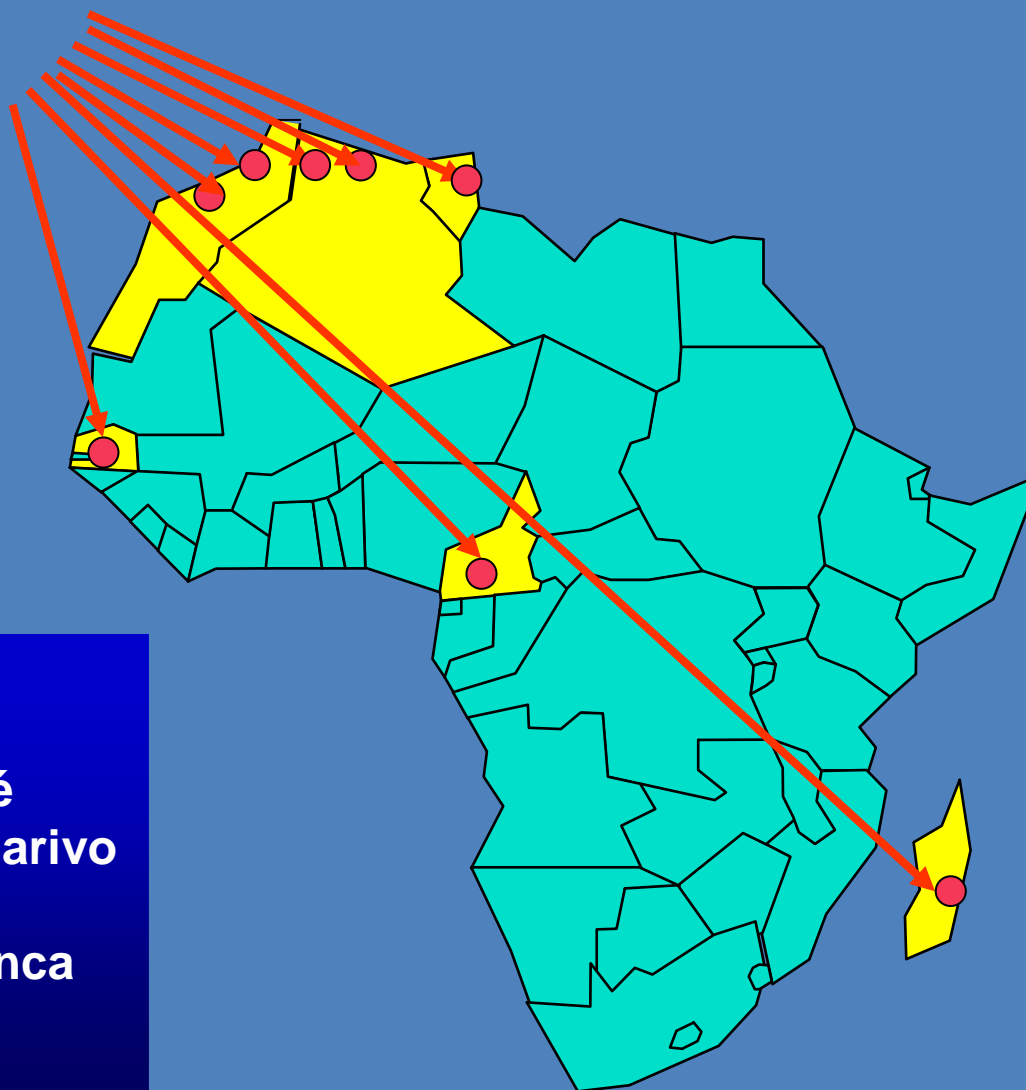
## Main objectives

- Studying the feasibility of adapted regimen in Wilms' Tumor
- Developing capacity of multidisciplinary approach
- Improvement of diagnostic and therapeutic tools

**GFAOP**

*8 PO units*

*6 African countries*



<b>Algeria</b>	<b>: Algiers</b>
	<b>Oran</b>
<b>Cameroon</b>	<b>: Yaoundé</b>
<b>Madagascar</b>	<b>: Antananarivo</b>
<b>Morocco</b>	<b>: Rabat</b>
	<b>Casablanca</b>
<b>Senegal</b>	<b>: Dakar</b>
<b>Tunisia</b>	<b>: Tunis</b>

# TREATMENT OF NEPHROBLASTOMA IN AFRICA

French African  
Pediatric Oncology Group Study

## Center participation

- One responsible physician in a multidisciplinary team :  
Paediatric oncologist, surgeon, pathologist and radiotherapist
- One common protocol
- One common set of forms to collect the data

# TREATMENT OF NEPHROBLASTOMA IN AFRICA

French African  
Pediatric Oncology Group Study

## Center commitments

- To register all renal tumors referred to the center
- To follow the protocol
- To fill and send to the secretariat all the forms required
- To send operative and pathological report and specimen for pathological and staging review

# TREATMENT OF NEPHROBLASTOMA IN AFRICA

French African  
Pediatric Oncology Group Study

Patients inclusion criteria

- Patients less than 18 years and more than 6 months
- With a diagnosis of unilateral nephroblastoma based on clinical and radiological features

# TREATMENT OF NEPHROBLASTOMA IN AFRICA

French African  
Pediatric Oncology Group Study

## PREOPERATIVE CHEMOTHERAPY

According to SIOP-2001 protocol

- Localized : 4 weeks , 4 VCR, 2 ACT D
- Metastatic : 6 weeks, 6 VCR, 3 ACT D, 2 ADRIA

# TREATMENT OF NEPHROBLASTOMA IN AFRICA

French African  
Pediatric Oncology Group Study

## POST OPERATIVE CHEMOTHERAPY

### STAGE I

ACT D 45  $\gamma$ /kg



VCR 1,5 mg/m<sup>2</sup>



Weeks



1

2

3

4

5

6

7

8

9

10

11

No radiotherapy

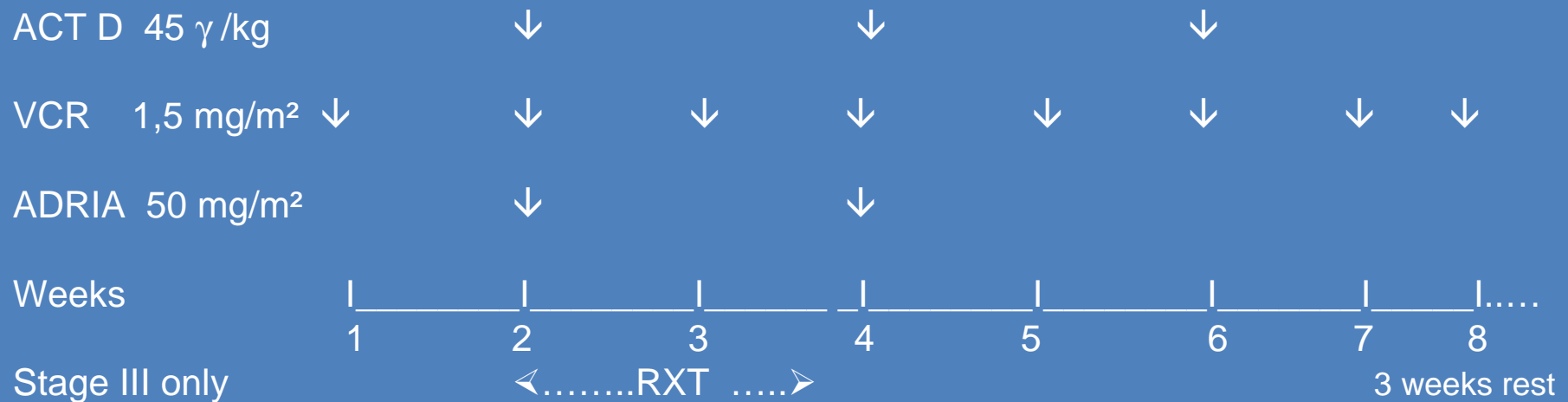
# TREATMENT OF NEPHROBLASTOMA IN AFRICA

French African

Pediatric Oncology Group Study

## POST OPERATIVE CHEMOTHERAPY

### STAGE over I



TREATMENT OF NEPHROBLASTOMA IN AFRICA  
French African  
Pediatric Oncology Group Study

MAINTENANCE CHEMOTHERAPY

STAGE over I

ACT D 45  $\gamma$  /kg



VCR 1,5 mg/m<sup>2</sup>



ADRIA 50 mg/m<sup>2</sup>



Weeks

11	12	13	14	15
17	18	19	20	21
23	24	25	26	27

# TREATMENT OF NEPHROBLASTOMA IN AFRICA

French African  
Pediatric Oncology Group Study

## STAGE IV

Are treated according to the Stage II ,III schedule if metastases have disappeared at time of surgery or have been controled by complete complementery surgery

## RADIOTHERAPY

Limited to Stage III

- No tumoral rupture :  
15 Gy, 1,8 to 2 Gy /session,12 days  
Limited to the flank
- Tumoral rupture :  
15 Gy, 1,5 Gy /session,14 days  
Whole abdomen  
limited to10 Gy on the remaining kidney
- Residual disease > 3 cm : Localized boost 10 to15 Gy

# TREATMENT OF NEPHROBLASTOMA IN AFRICA

French African  
Pediatric Oncology Group Study

## Patients inclusion

From April 2001 to October 2003 :

194 patients registered

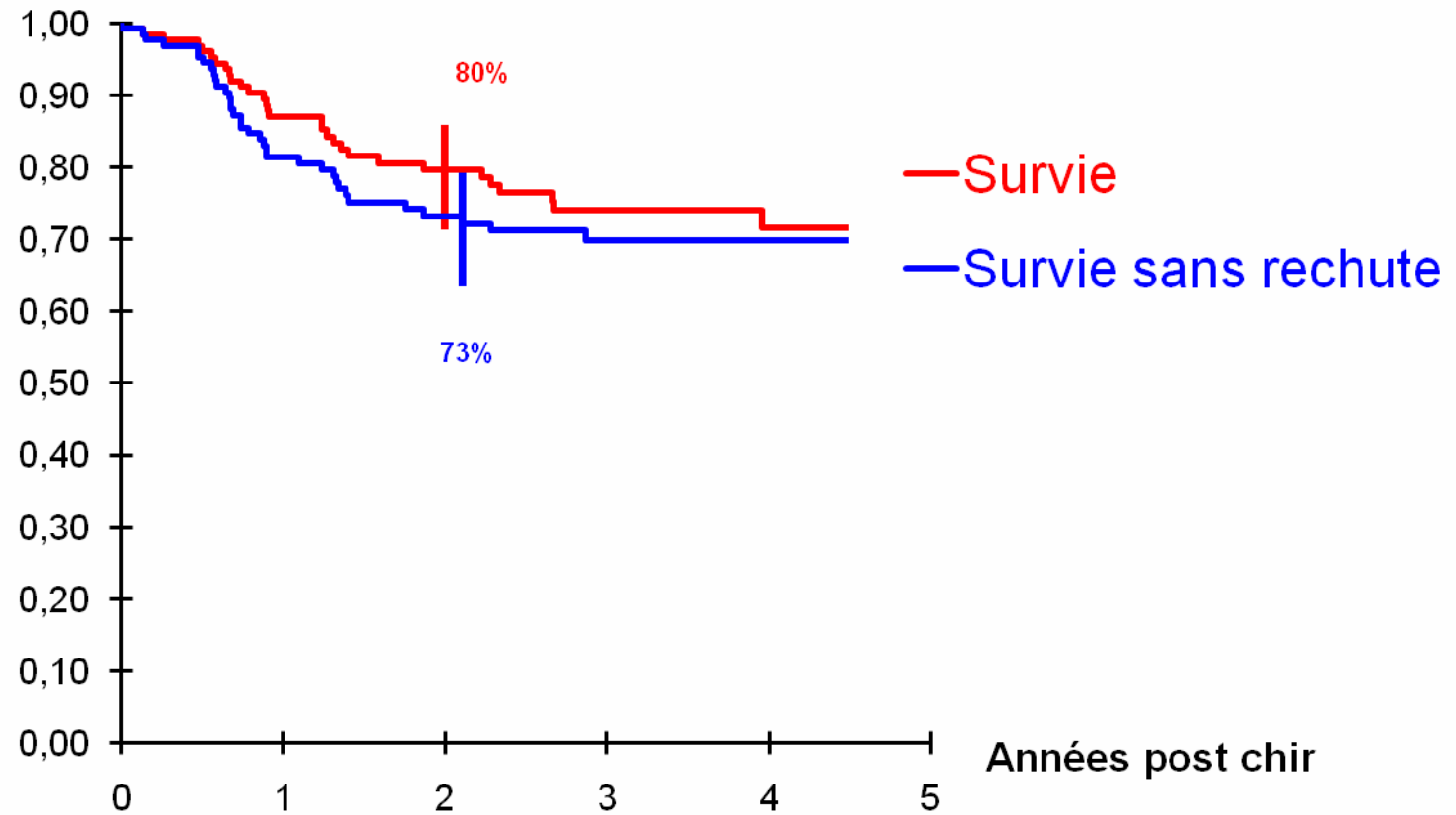
35 excluded at registration

159 included in the study

26 excluded after surgery

133 patients remaining in the study

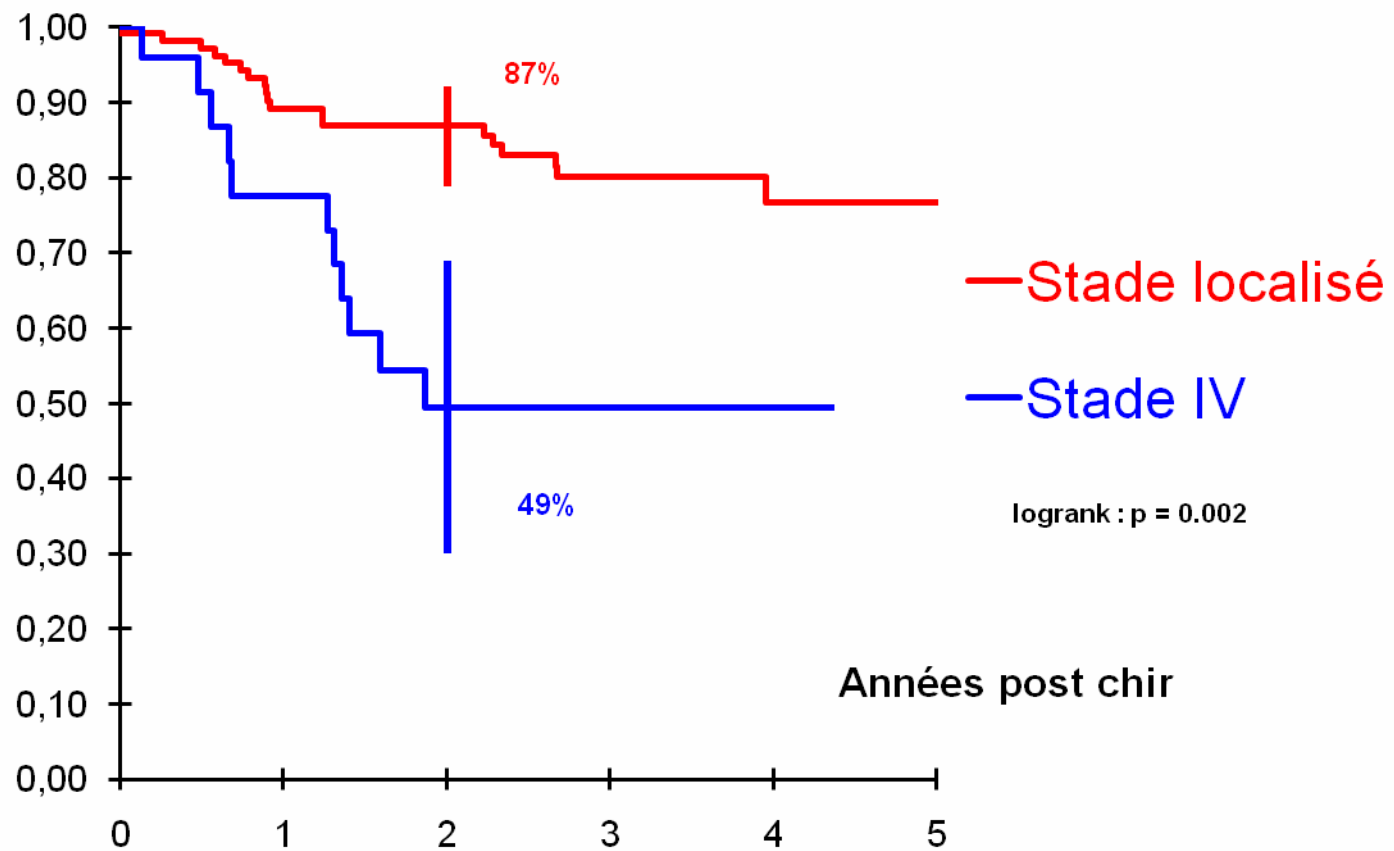
## Néphroblastome - Etude I



A risque

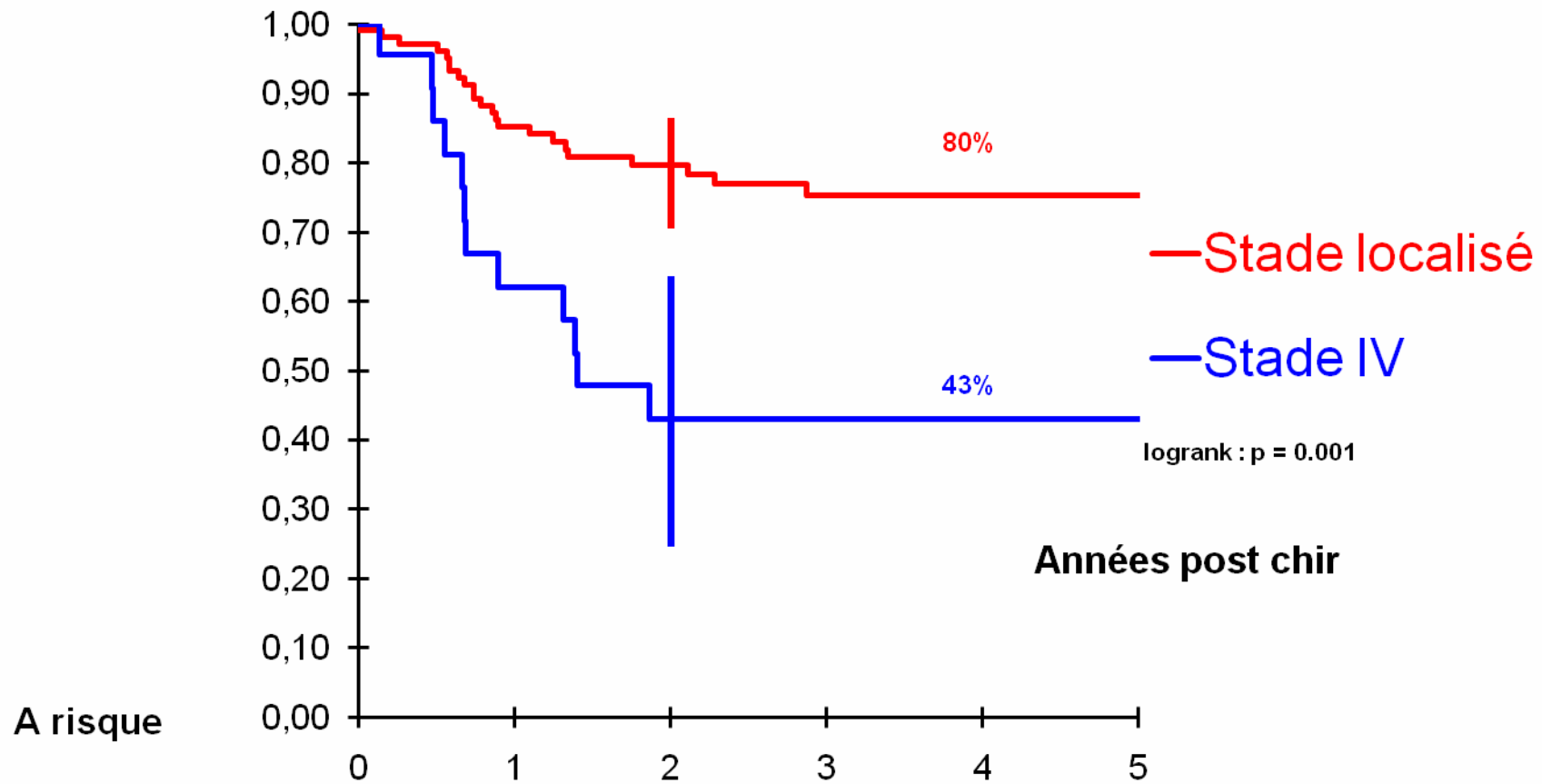
— 133	104	78	49	28	8
— 133	98	73	46	27	8

## Néphroblastome - Etude I - Survie globale



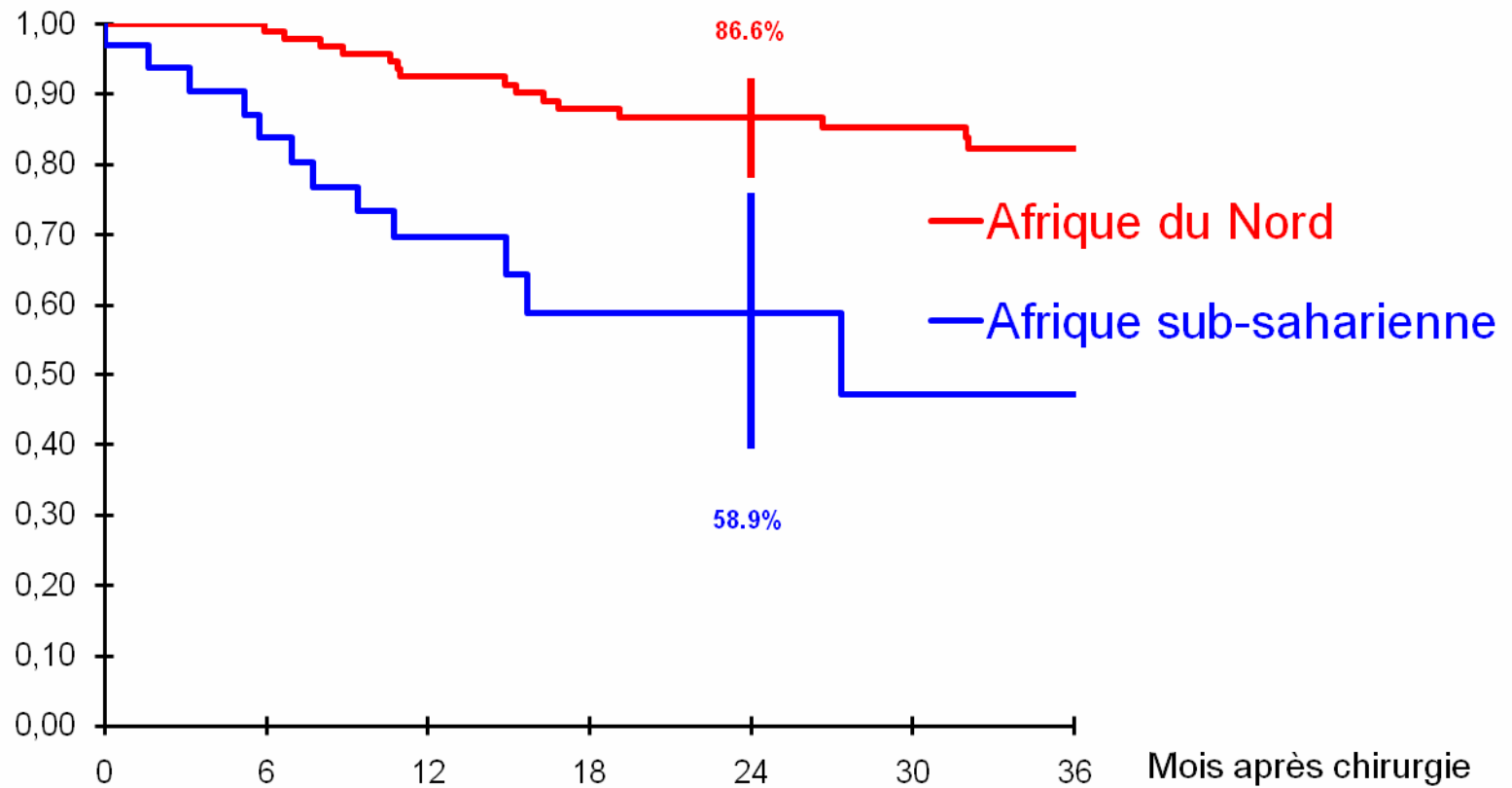
A risque	0	1	2	3	4	5
— 109	87	69	40	22	4	
— 24	17	9	9	6	4	

## Néphroblastome - Etude I - EFS



— 109	84	64	37	21	4
— 24	13	8	8	5	3

## Néphroblastome 2001-04 Etude I Survie



A risque

—	<b>101</b>	<b>94</b>	<b>84</b>	<b>73</b>	<b>66</b>	<b>60</b>	<b>39</b>
—	<b>33</b>	<b>25</b>	<b>18</b>	<b>8</b>	<b>6</b>	<b>3</b>	<b>2</b>

**GFAOP NEPHROBLASTOME  
ETUDE N° II  
GFAOP-NEPH2005**

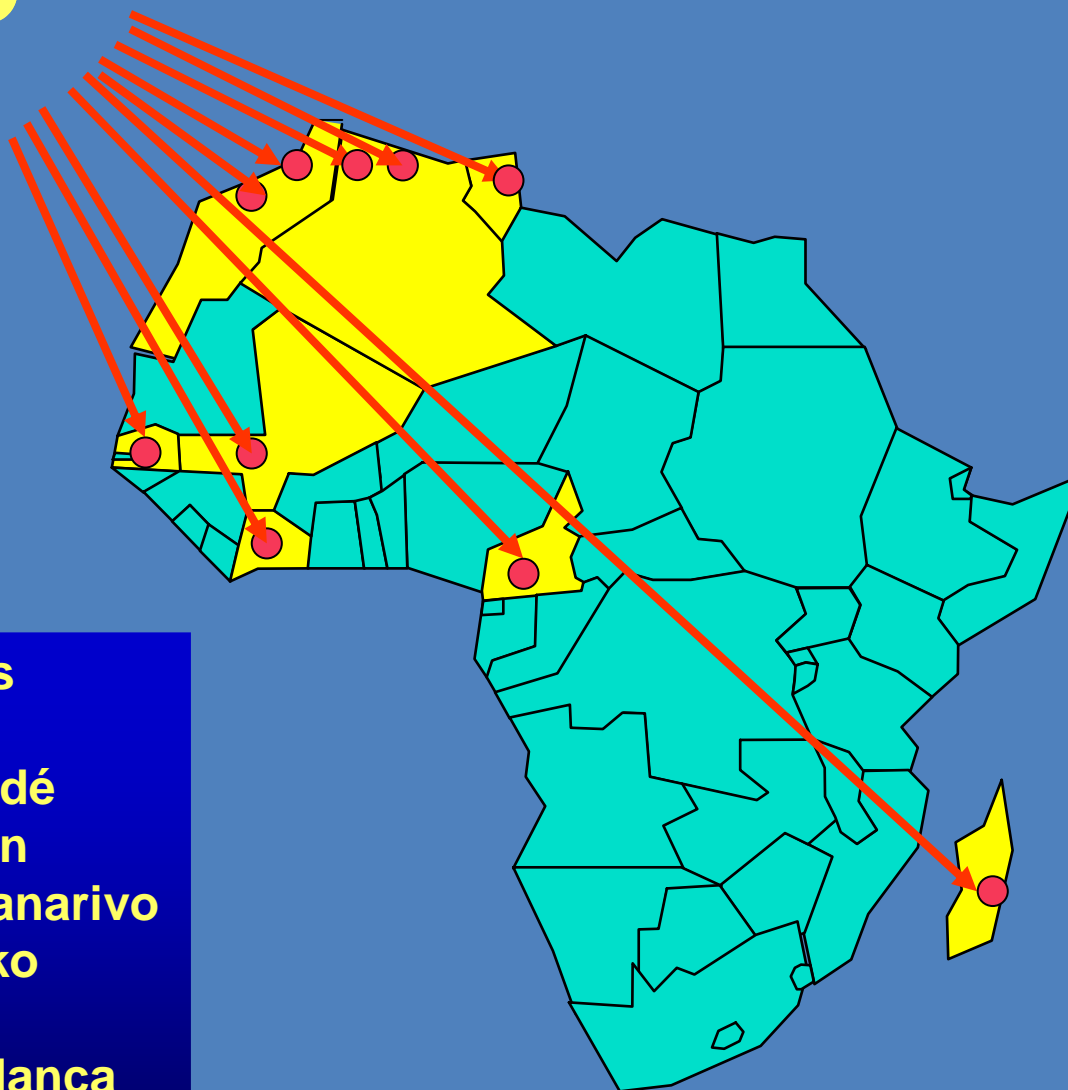
**Résultats préliminaires**

**01/04/2005 - 29/2/2008**

# **GFAOP**

**10 unités OP**

**8 pays  
africains**



<b>Algérie</b>	<b>: Algiers</b>
	<b>Oran</b>
<b>Cameroon</b>	<b>: Yaoundé</b>
<b>Cote d'Ivoire</b>	<b>: Abidjan</b>
<b>Madagascar</b>	<b>: Antananarivo</b>
<b>Mali</b>	<b>: Bamako</b>
<b>Maroc</b>	<b>: Rabat</b>
	<b>Casablanca</b>
<b>Senegal</b>	<b>:</b>
<b>Dakar</b>	
<b>Tunisie</b>	<b>: Tunis</b>

# Étude GFAOP 2005: Résultats préliminaires

## Inclusion des patients :

Entre Avril 2005 et Février 2008 :

- 264 patients enregistrés

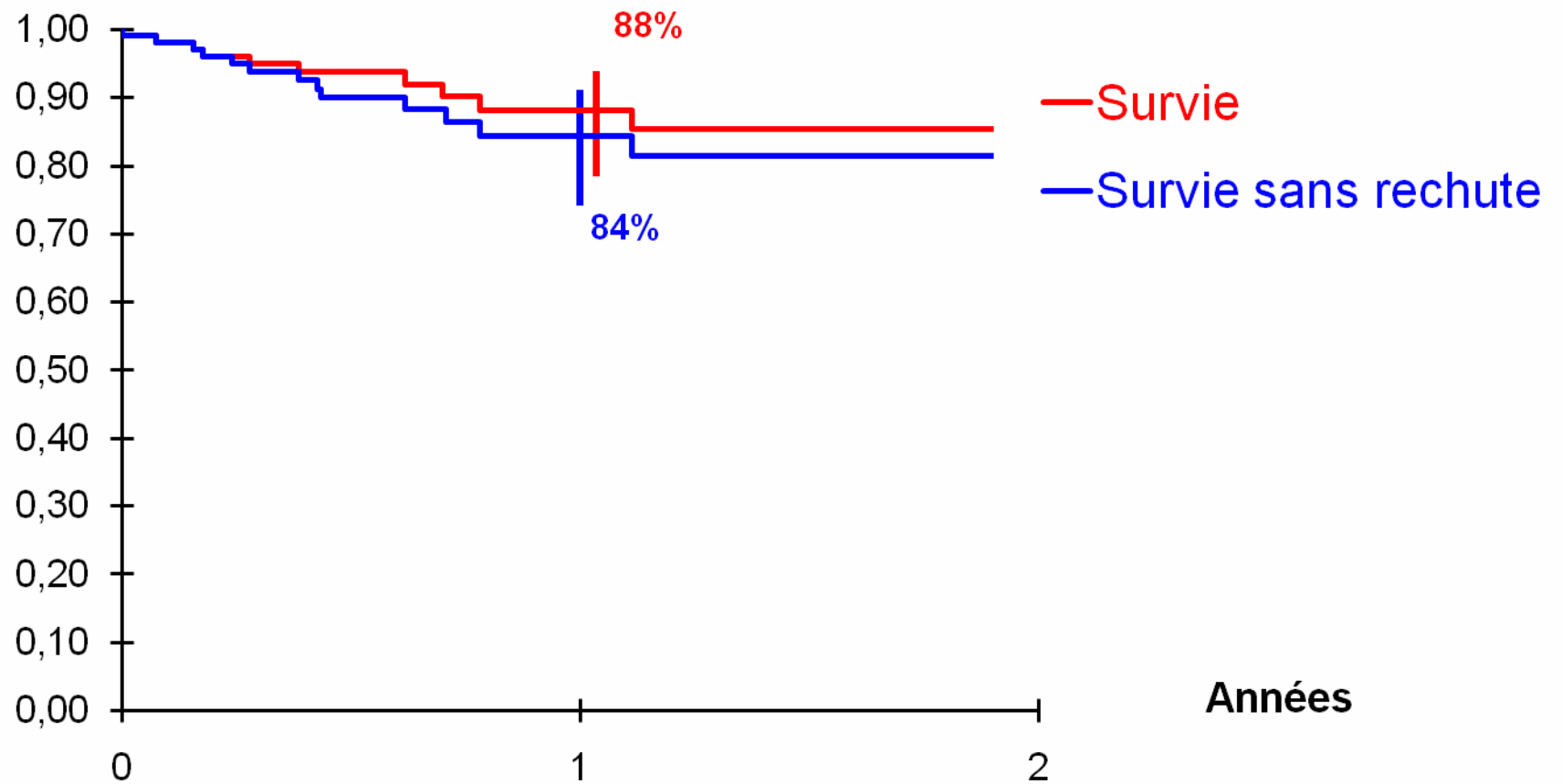
  - 43 exclus à l'enregistrement

  - 221 inclus dans l'étude

  - 45 exclus après chirurgie

- 176 patients restant dans l'étude

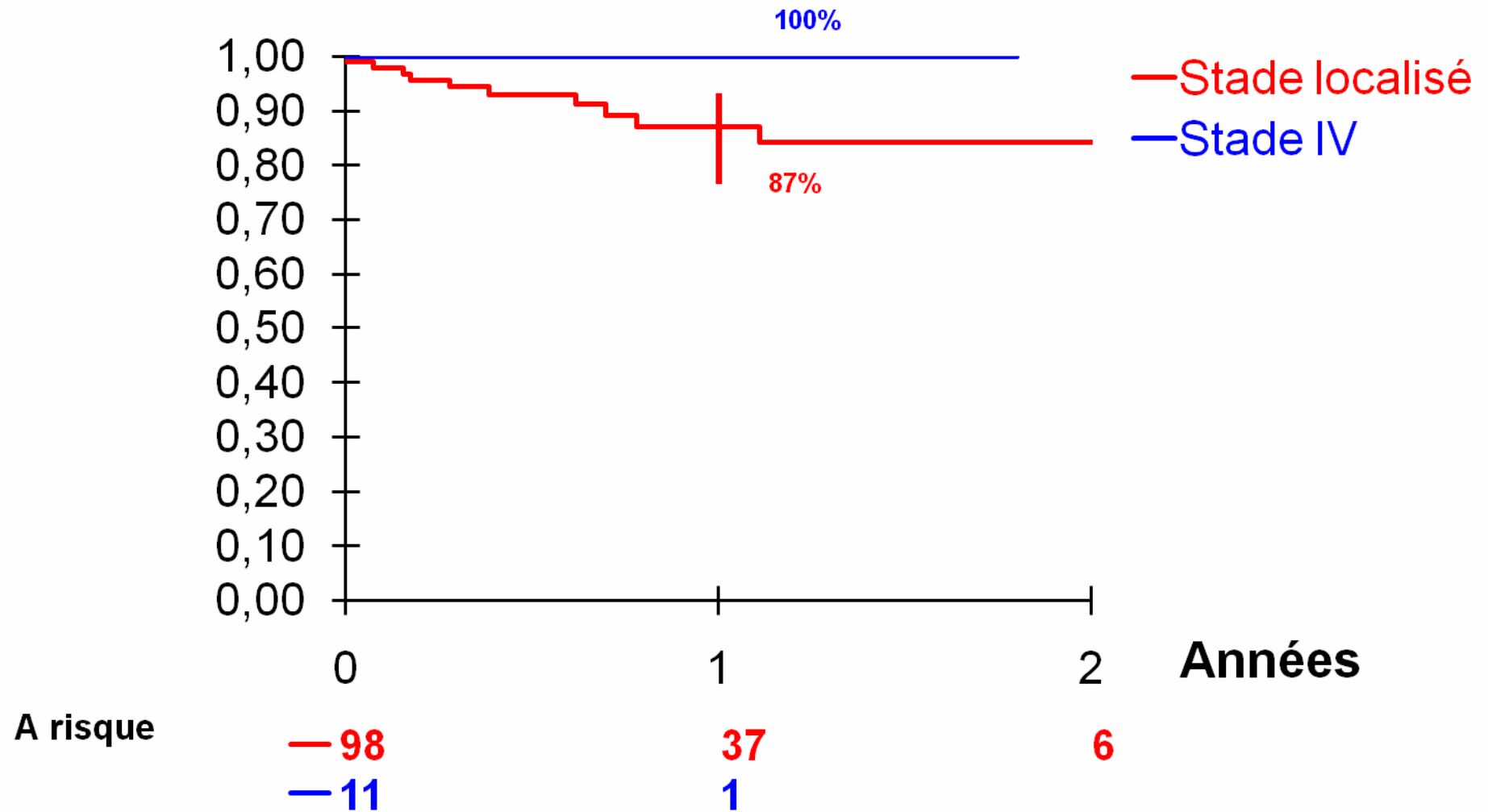
## Néphroblastome - Etude II



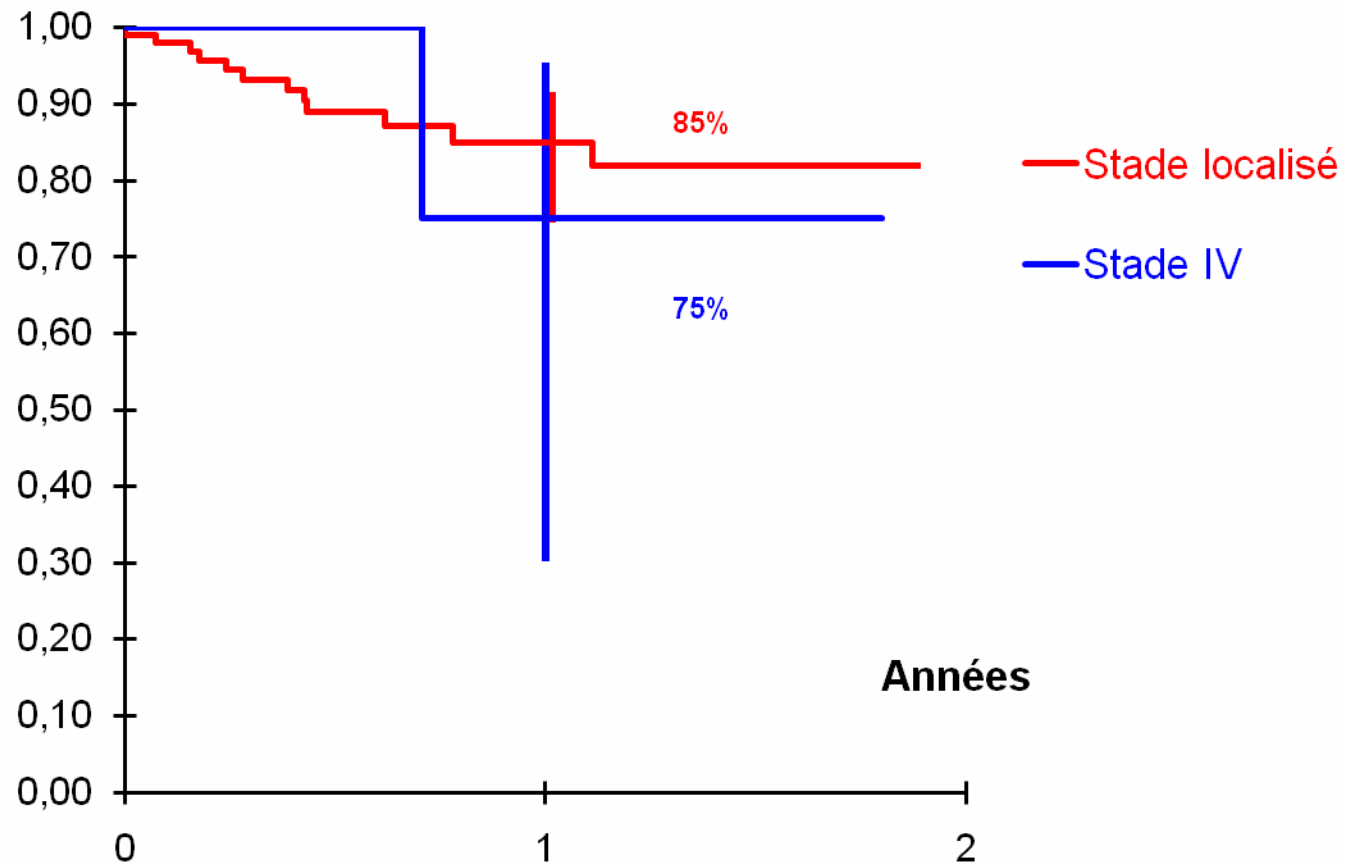
### A risque

— 109	38	6
— 109	36	6

## Néphroblastome - Etude II - Survie



## Néphroblastome - Etude II - EFS



A risque

— 98

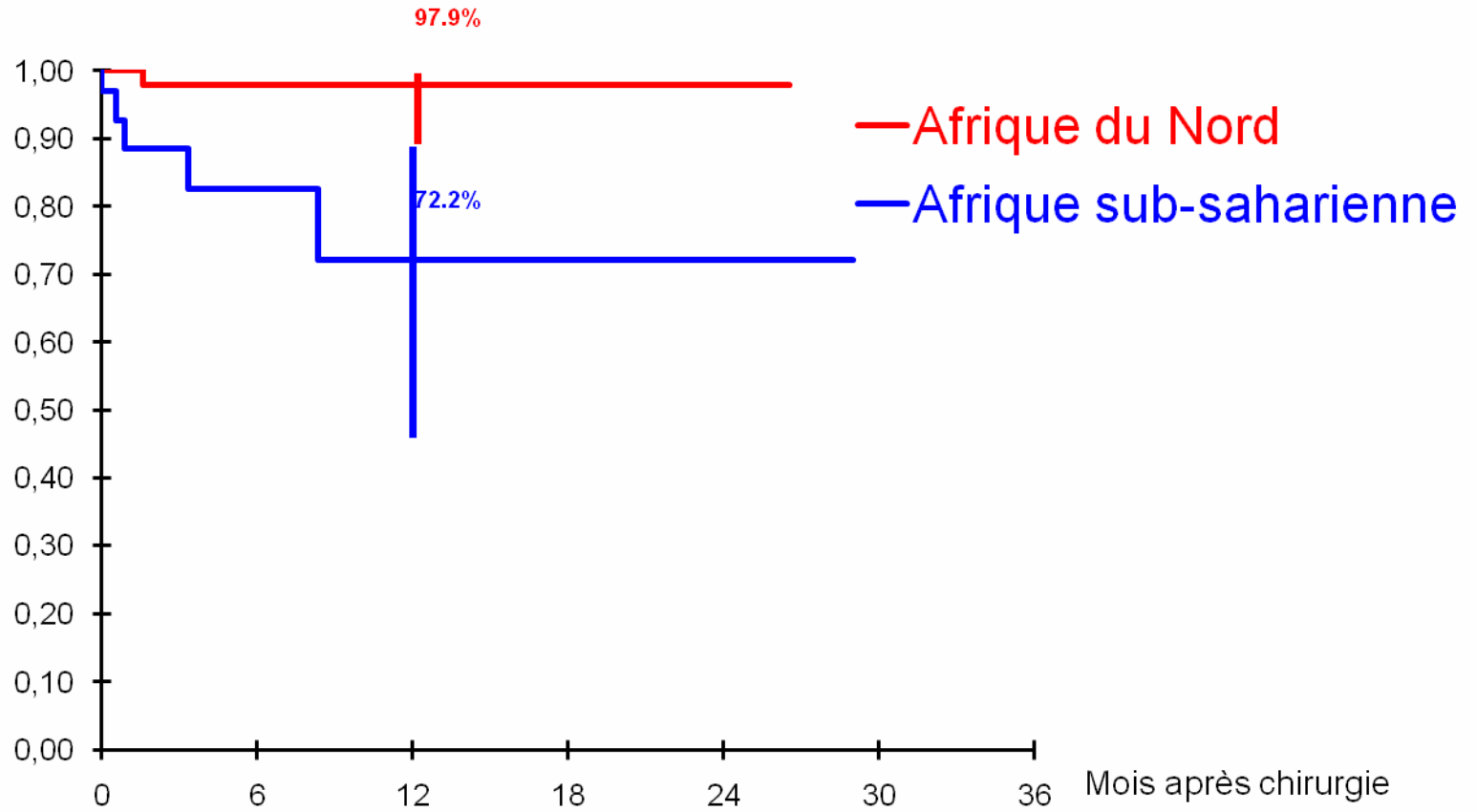
— 11

35

1

6

## Néphroblastome 2005-07 - Survie



### A risque

— 55	32	20	12	2
— 32	10	3	2	1

# TREATMENT OF NEPHROBLASTOMA IN AFRICA

French African  
Pediatric Oncology Group Study

## CONCLUSION

### Problem identified during the study :

- Data collection :
  - Surgical and pathological data for staging procedure
  - Follow up
- Pathological review
- Drug availability
- Radiotherapy availability

# TREATMENT OF NEPHROBLASTOMA IN AFRICA

French African  
Pediatric Oncology Group Study

## CONCLUSION

Participating centers are different :

- Recruitment
- Resources :       drugs, radiotherapy, pathology  
                          medical team
- Multidisciplinary approach, Data collection and follow up

# TREATMENT OF NEPHROBLASTOMA IN AFRICA

French African  
Pediatric Oncology Group Study

**However :**

**Nephroblastoma studies are feasible as a multicentric program in Africa**

**The tolerance of the protocol is good when the recommended dose adaptations are followed**

**Compliance to the procedure is improving**

**Survival is acceptable**

# Twinning/International Support



# Twinning/International Support

International partnership

