



**Professor Serke, Professor Huhn
Priv.-Doz. Martin, Professor Hoelzer
Dr. Goldschmidt, Professor Haas
HD1 1995**

**Dr. Cremer, Prof. Ho
„Triple MMM“ 2000**



Front-Line Trials of the GMMG

- HD1 Trial: Tandem-Transplantation 1996 – 1998
(Phase II, n=151)
- HD2 Trial: Single- versus Double-Transplantation
(Phase III, n=480) 1998 – 2001
- HD3 Trial: Tandem-Transplantation (Germany)
plus/minus Thalidomide (Phase III, GMMG n=550,
HOVON n=500) 2001 – 2004
- HO65/HD4 Trial: VAD vs. PAD, Transplantation,
maintenance Thalidomide vs. Bortezomib (Phase III,
GMMG n=399, HOVON=434) 2005-2008
- MM5 Trial: VCD vs. Pad, Standard-intensification,
consolidation / maintenance Lenalidomid,
maintenance 2a vs. until CR (Phase III, n=504, start
II/2010)

HD-1:Treatment Plan

VA(I)D, until CR or plateau, max. 6 cycles

HD-cyclophosphamide + G-CSF



**1996-1998
(n=151)**

Leukaphereses
(CD34⁺-
selection)

Berlin
Frankfurt
Heidelberg

Serke/Huhn
Martin/Hoelzer
Goldschmidt/Haas

α -interferon



**Randomisation VID vs.
VAD**

until CR or plateau, max. 6 cycles

HD-cyclophosphamide
(ifosfamide) + G-CSF

HD2 Therapy Plan

**1998-2001
(n=485)**

Leukaphereses
CD34⁺-selection optional

Randomisation

**Melphalan
200 mg/m²
+ PBSCT**

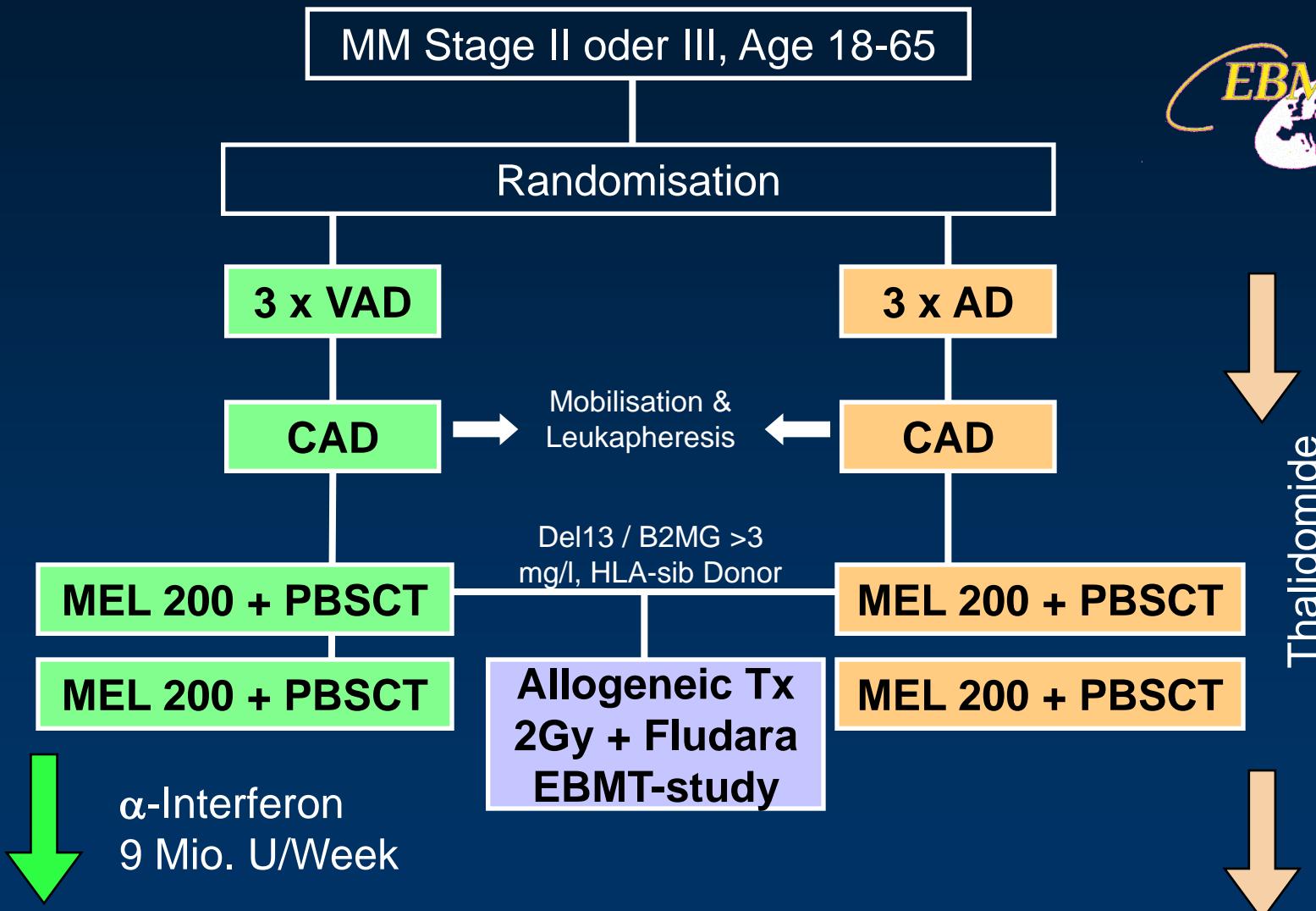
cycle 1 —
cycle 2 —

interferon- α

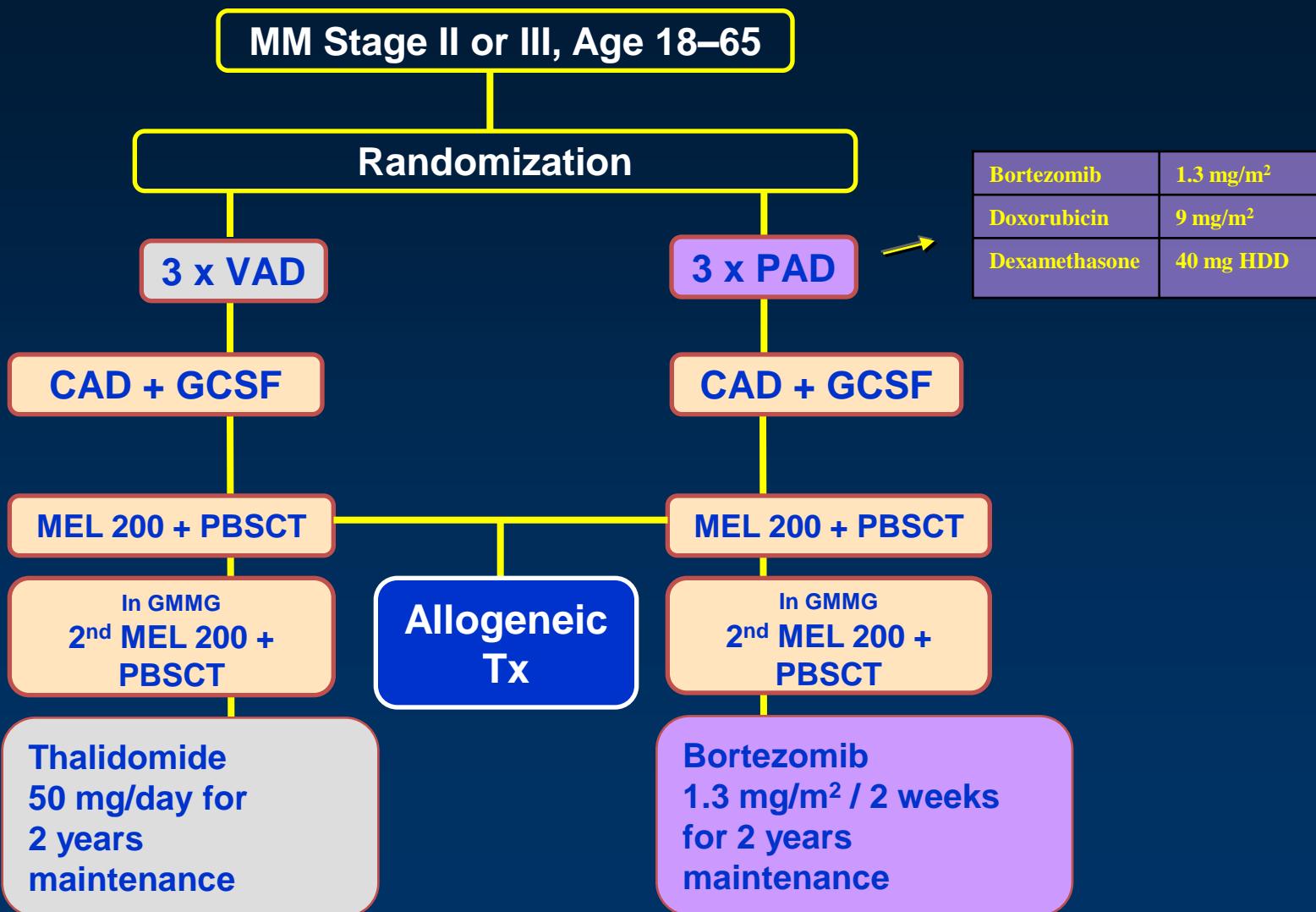
One cycle

interferon- α

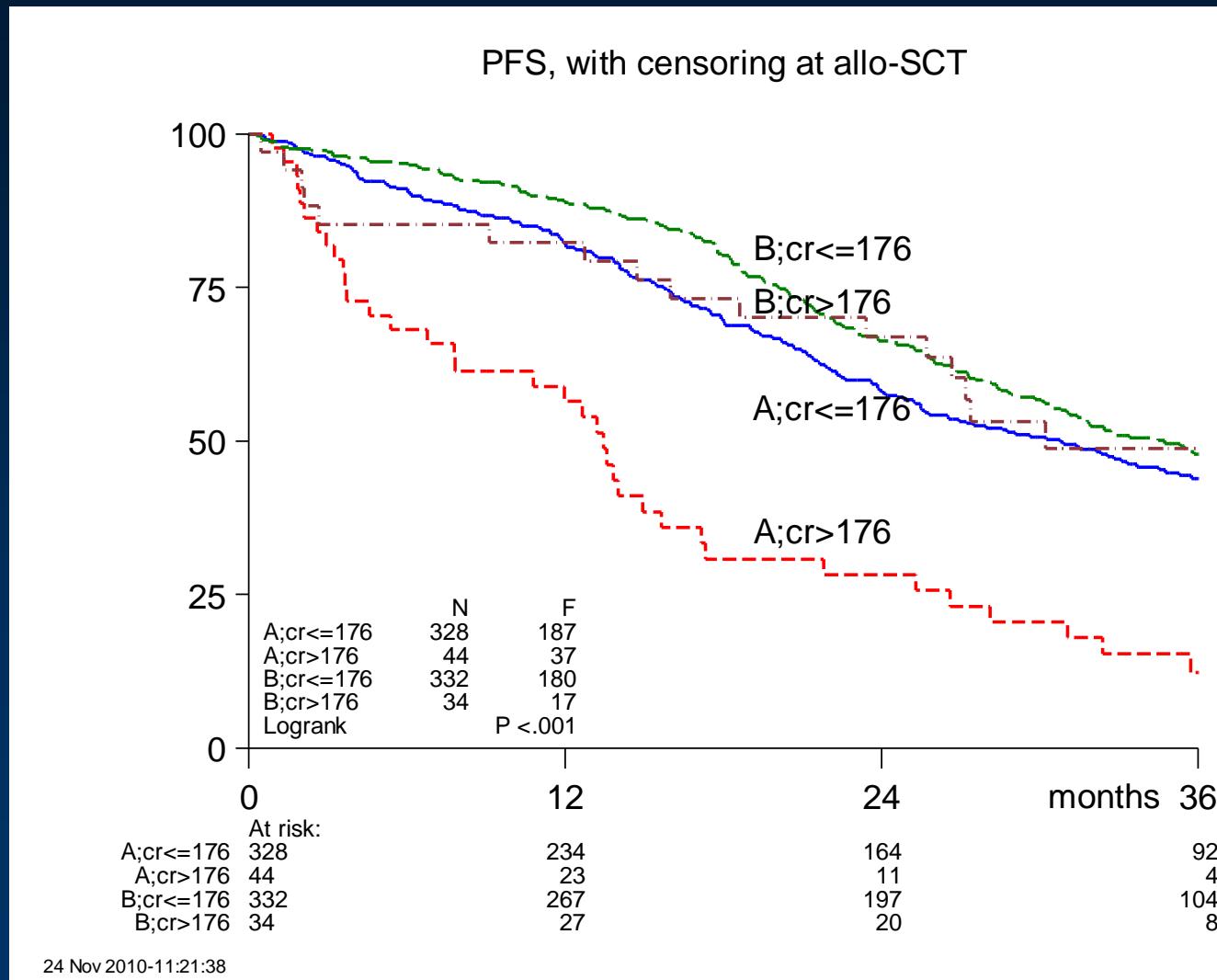
HD3/HOVON50-Studie 2001-2004



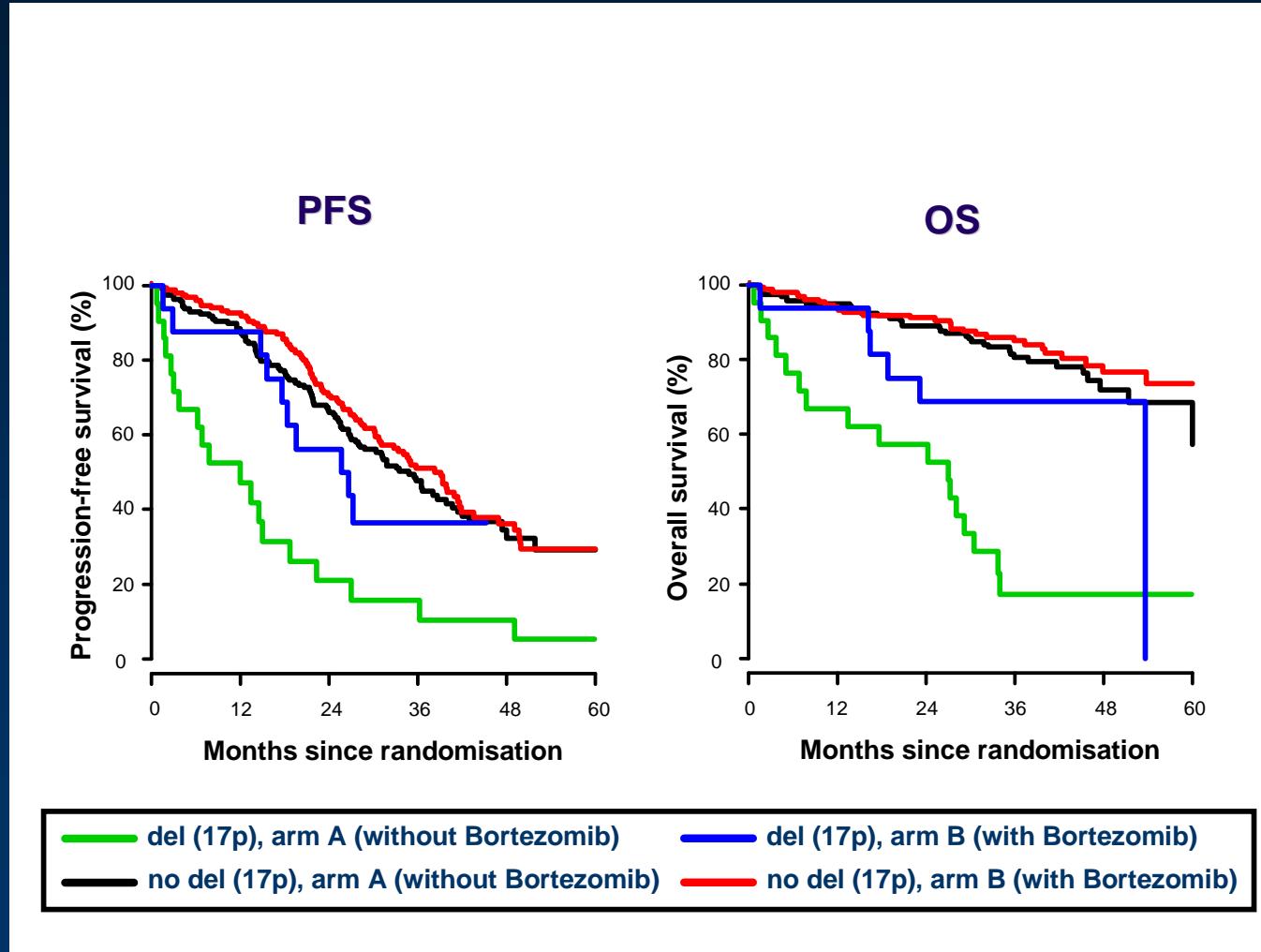
HOVON 65 MM / GMMG-HD4 Trial



HO65/HD4: Impact of kidney function



Comparison between both study arms HD4 Deletion 17p13



PAD (Vel/Dex) zur Erstlinienbehandlung von Patienten mit multiplen Myelom

„Standard für die Induktionstherapie war bislang VAD, so dass der Ersatz der ohnehin nicht sehr wirksamen Substanz Vincristin durch Bortezomib entsprechend dem GMMG/HOVON-Protokoll als neuer Standard für die Induktionstherapie anzusehen ist. Dies entspricht auch der Bewertung der deutschen Studien-gruppe GMMG.“

MDK Gutachten Prof. Heyll, August 2009



Kompetenz Centrum
Onkologie

Prof. Dr. med. A. Heyll (Leiter)
Dr. med. K.-P. Thiele (stellv. Leiter)
Dr. med. B. Zimmer MPH
Dr. med. T. Weihkopf MSc
Dr. med. A. Niederste-Hollenberg
Dr. med. P. Schüller



MM5-Trial



symptomatic MM
1st line treatment
18-70a

Randomization

3 x PAd A1 + B1

3 x VCD A2 + B2

CAD + leukapheresis

HDM + TPL

2. HDM + TPL (if no nCR/CR)

Standard intensification according to local protocol (GMMG standard)

2 x Lenalidomide

A1

B1

A2

B2

Lenalidomide
for 2 years

Lenalidomide
if no CR

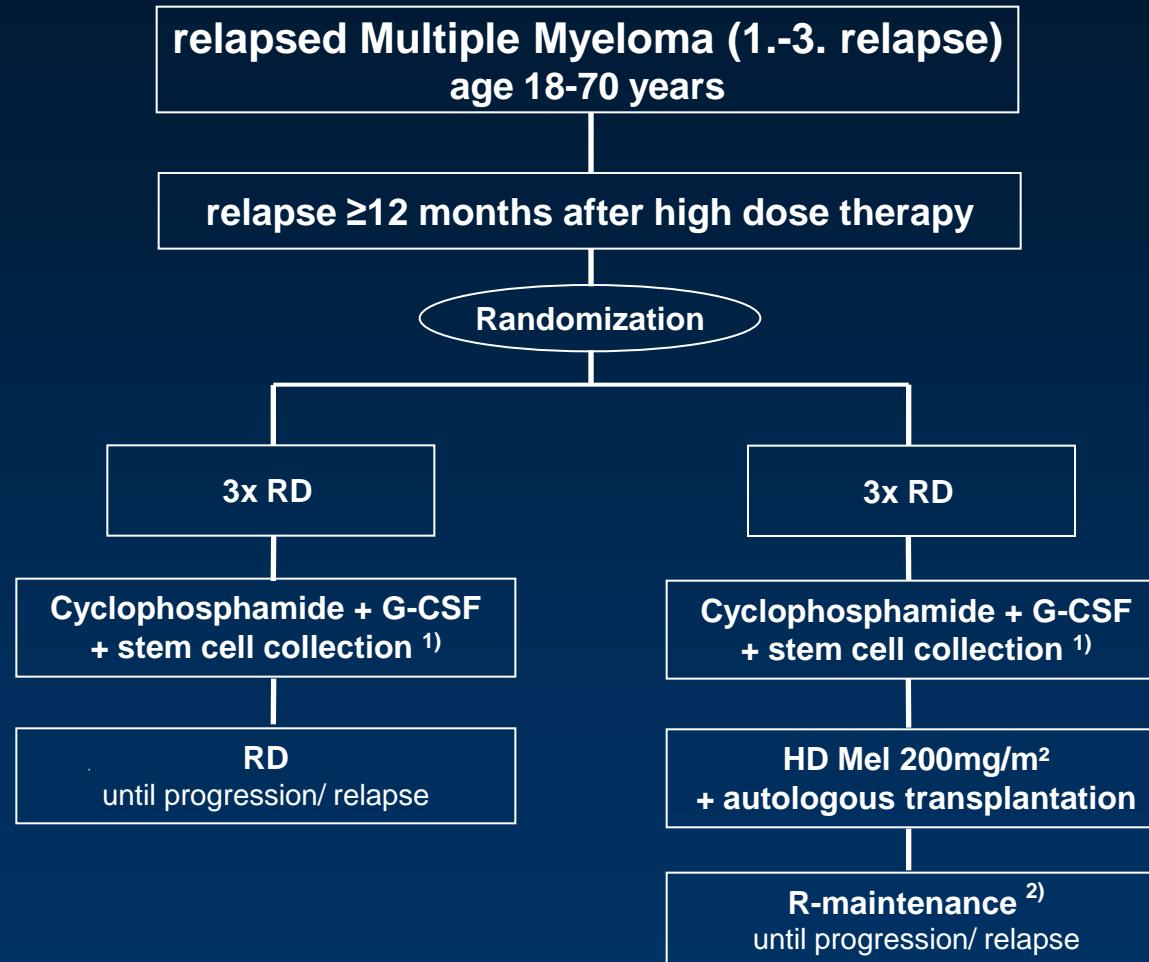
Lenalidomide
for 2 years

Lenalidomide
if no CR

1) High Risk Patients, optional in Phase II trial



GMMG-ReLapsE study



1) stem cell collection only if no useable stem cells are available from earlier mobilization

2) Lenalidomide (Revlimid®) maintenance therapy 10mg/day

R-Lenalidomide (Revlimid®), D-Dexamethasone, HD Mel-high dose Melphalan

GMMG-HD2, -HD3, -HD4 – Beteiligte Kliniken und Praxen

