Light Chain Cast Nephropathy: Beyond Plex (CAR-T, Bispecific)

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Disclosures

- Consultant: Omeros, Lilly
- Speaker’s Bureau:
- Grant/Research Support: Omeros
- Stock Shareholder: AbbVie
- Honoraria:
- Full-time/Part-Time Employee:
- Other:

Learning objectives

- Review the pathogenesis of light chain cast nephropathy
- Examine previous treatments of light chain cast nephropathy
- Discuss the potential of new immunotherapies in myeloma for light chain cast nephropathy

Dr. Henry Bence Jones

- 1843- Thomas Alexander McBean – age 42
  - Fatigue
  - Body linen was stiffened by his urine
  - Atraumatic severe back pain
  - Dr. William Macintyre – initially saw the patient
  - Dr. Thomas Watson - boiled the urine
  - Dr. Bence Jones
    - hydrated deutoxide of albumin (BJP)
    - 67 g/d

Steensma and Kyle. A History of the Kidney in Plasma Cell Disorder. Contrib Nephrol 2007

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Bence Jones Proteinuria

- Initially thought to be benign
- In 1909, Alfred von Decastello described plugging of the kidney by amorphous substance in a multiple myeloma patient
- 1n 1945, the term cast nephropathy was first used by Oliver and replaced the earlier term myeloma kidney

Steensma and Kyle. A History of the Kidney in Plasma Cell Disorder. Contrib Nephrol 2007

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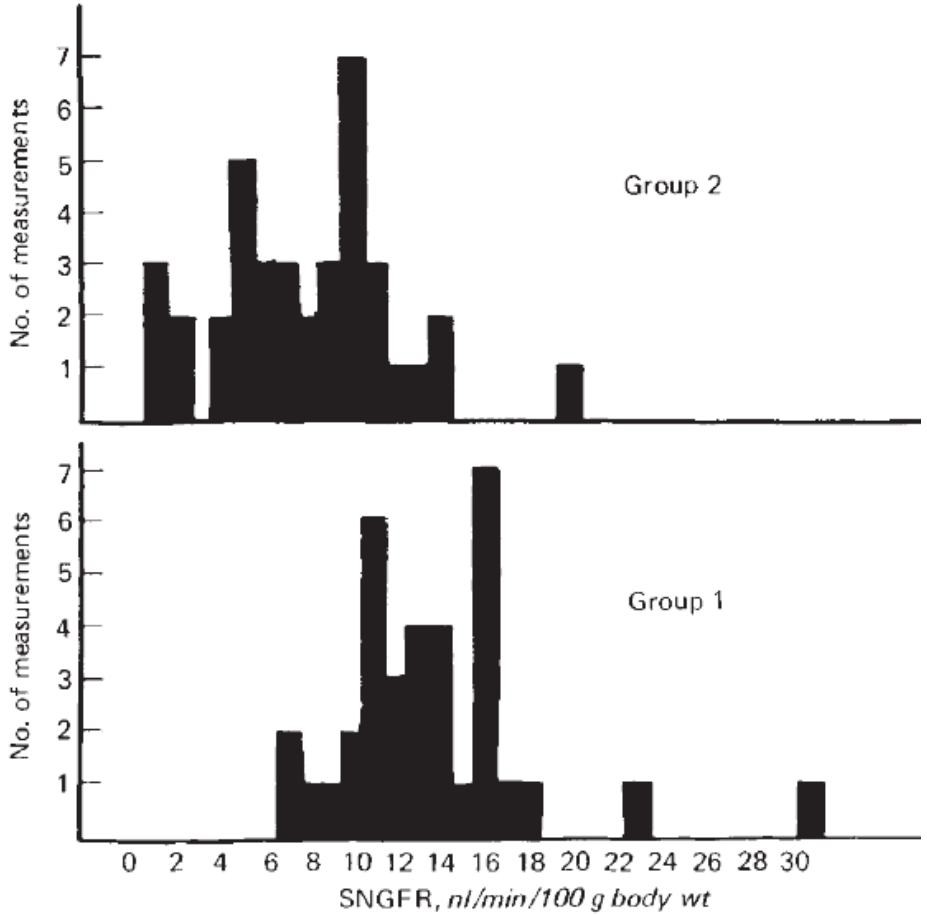
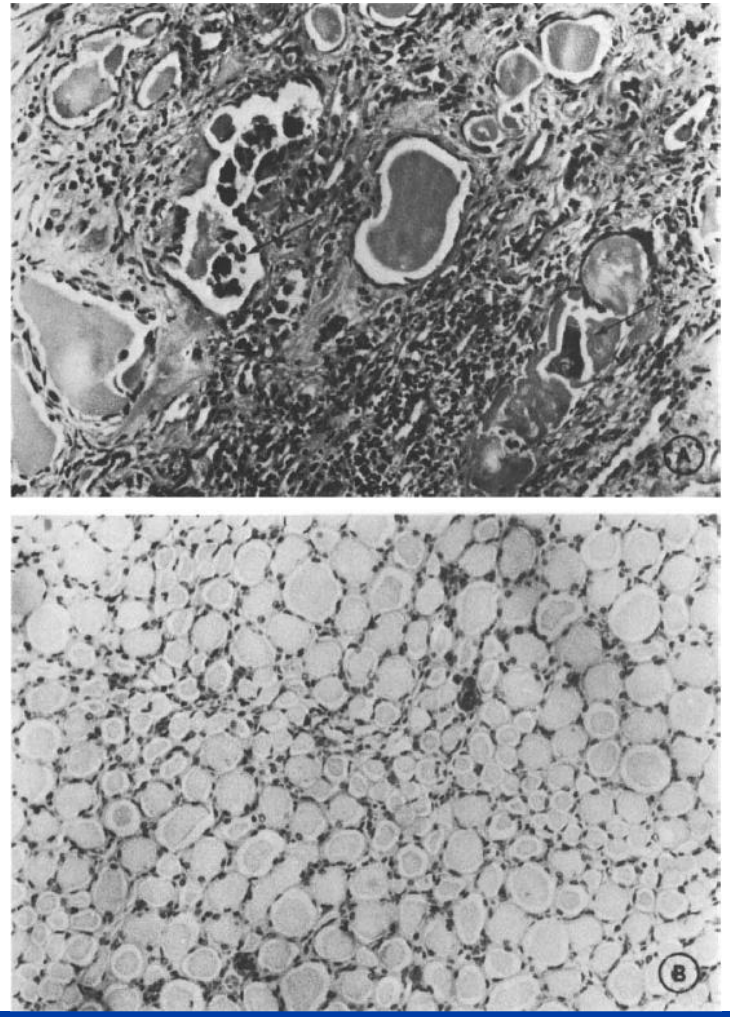
Pathophysiology of acute Bence-Jones protein nephrotoxicity in the rat





Weiss et al. Kidney Int 1981

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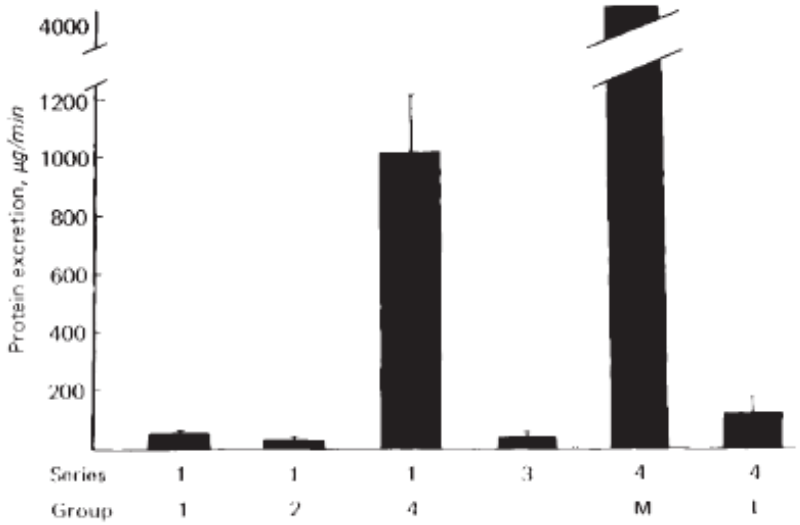
Urinary protein in light chain cast nephropathy

BJP



Weiss et al. Kidney Int 1981

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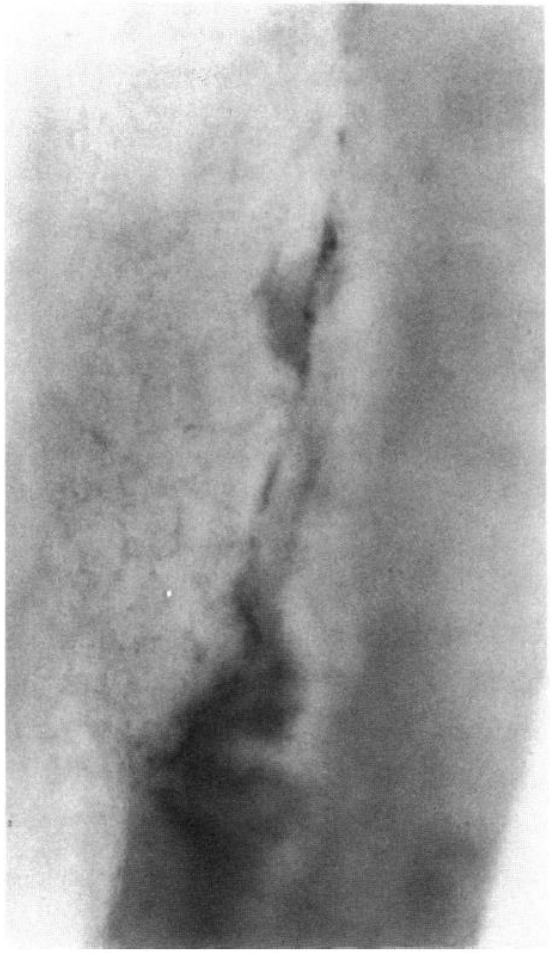
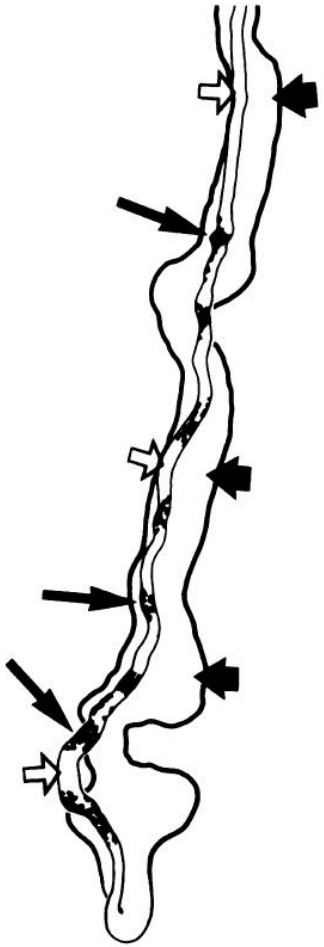
Light chain cast nephropathy





- Distal tubular obstruction at a concentration dependent fashion
- Cast consisted of light chain and Tamm Horsfall protein
- Rate of obstruction was influenced by extracellular fluid status, electrolyte concentrations, enhanced by furosemide and inhibited by colchicine through interaction with Tamm-Horsfall protein

Sanders and Booker. JCI 1991

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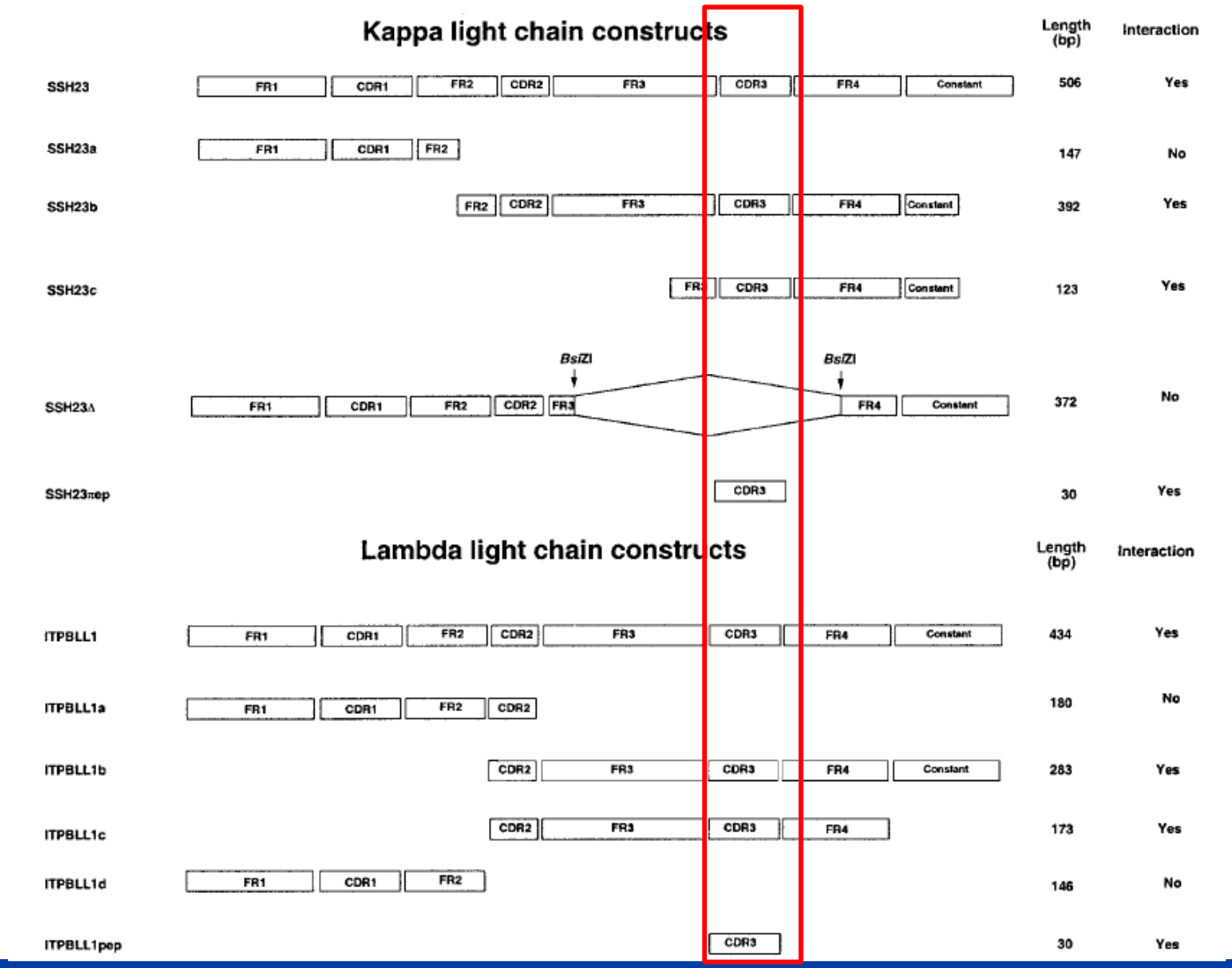
Mapping of the binding site of the immunoglobulin light chain



Ying and Sanders. Am J Pathol 2001

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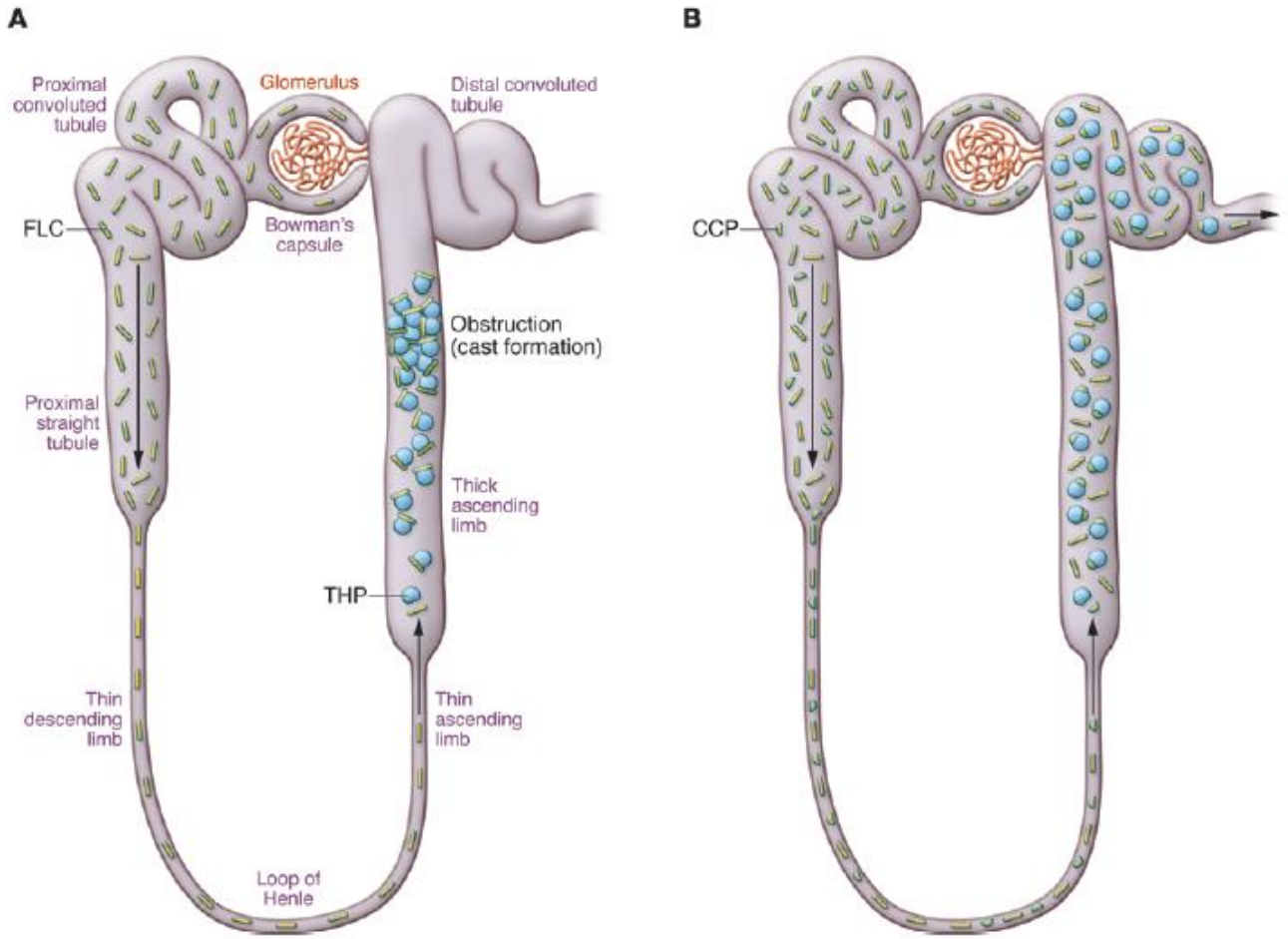
Cyclic peptide that inhibits light chain cast nephropathy



Leung. JCI 2012

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Incidence of acute kidney injury in NDMM

Blade et al. Arch Int Med 1998, Knudsen et al. Eur J Haematol 2000,

Courant et al. Blood Cancer J. 2015,

Terpos et al. Euro J Haematol 2013,

Gonsalves et al. Blood Cancer J. 2015

Kleber et al. Euro J Haematol 2009,

Ho et al. Clin Lymph Myeloma Leuk 2019.

- (Scr) > 1.4 mg/dl: 16% - 31%
- Scr > 2 mg/dl: 16% - 22%
- eGFR < 60 ml/min/1.73 m2: 36% to 45%
- eGFR < 30 ml/min/1.73 m2: 12% to 17%
- IMWG criteria (Scr > 2 mg/dl or eGFR < 40): 24.6%
- Dialysis:12.9% (6% - 8%)

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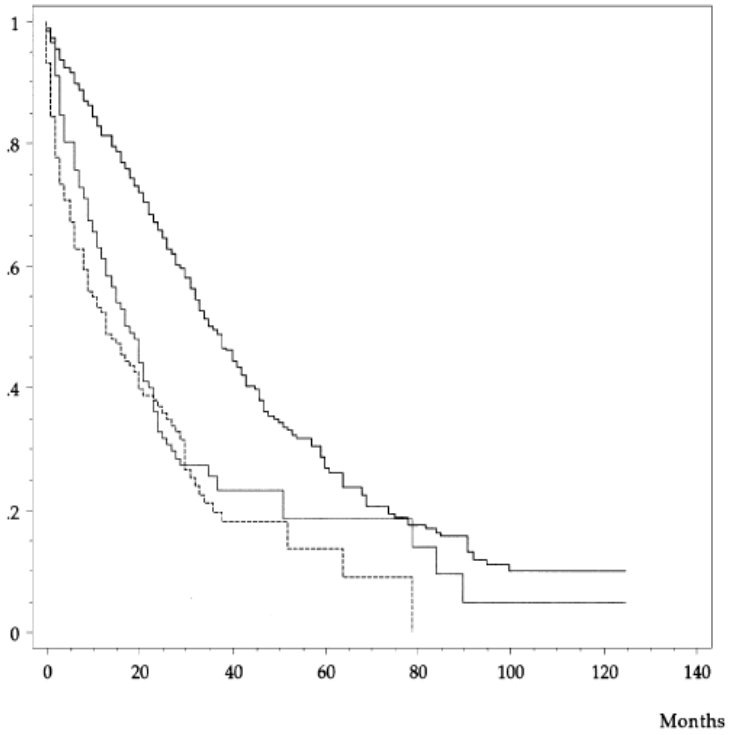
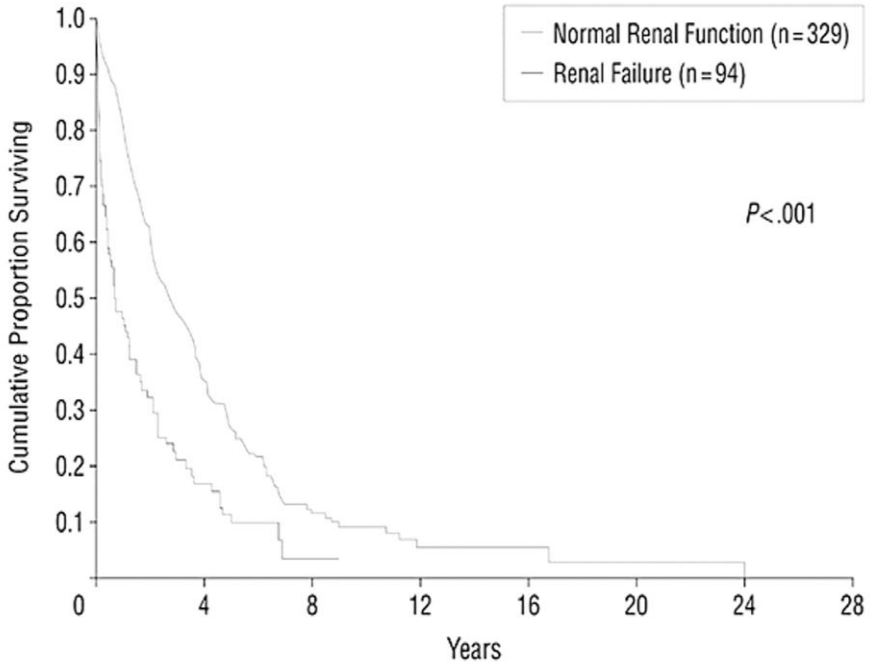
Survival of Myeloma Patients by Renal Function

Scr < 1.49, 1.5 – 2.27, >2.27 mg/dL



Scr > 2.0 mg/dL



Knudsen et al. Eur J Haematol. 2000; Blade et al. Arch Int Med 1998

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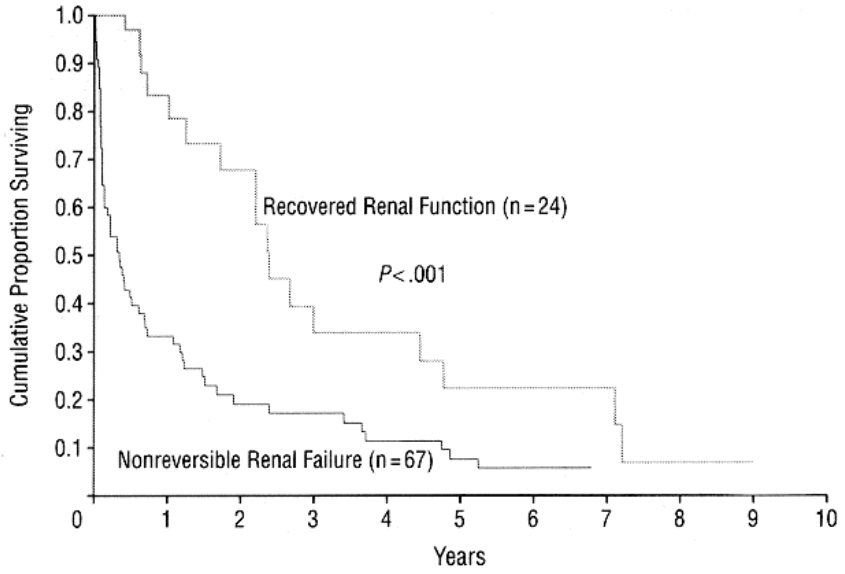
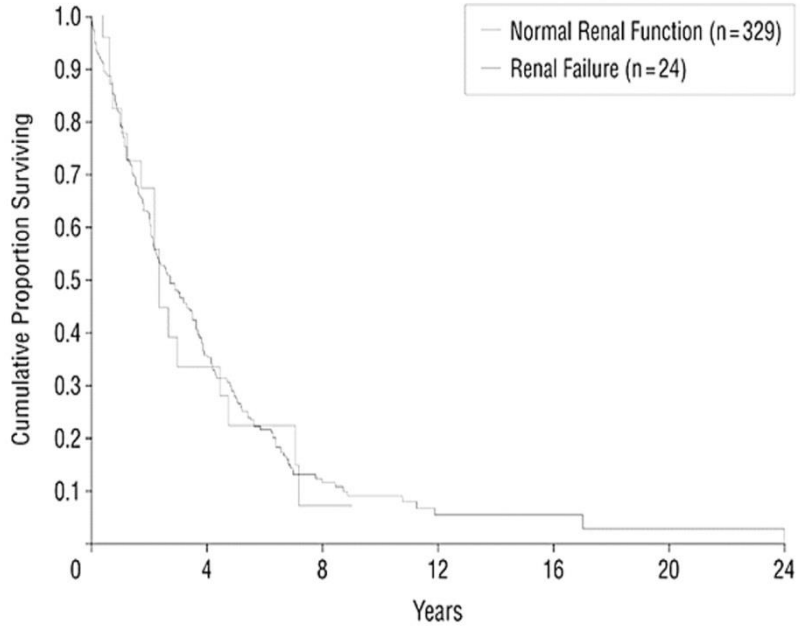
Improvement of Renal Recovery is Associated with Better Survival in Myeloma Patients





Blade et al. Arch Int Med 1998

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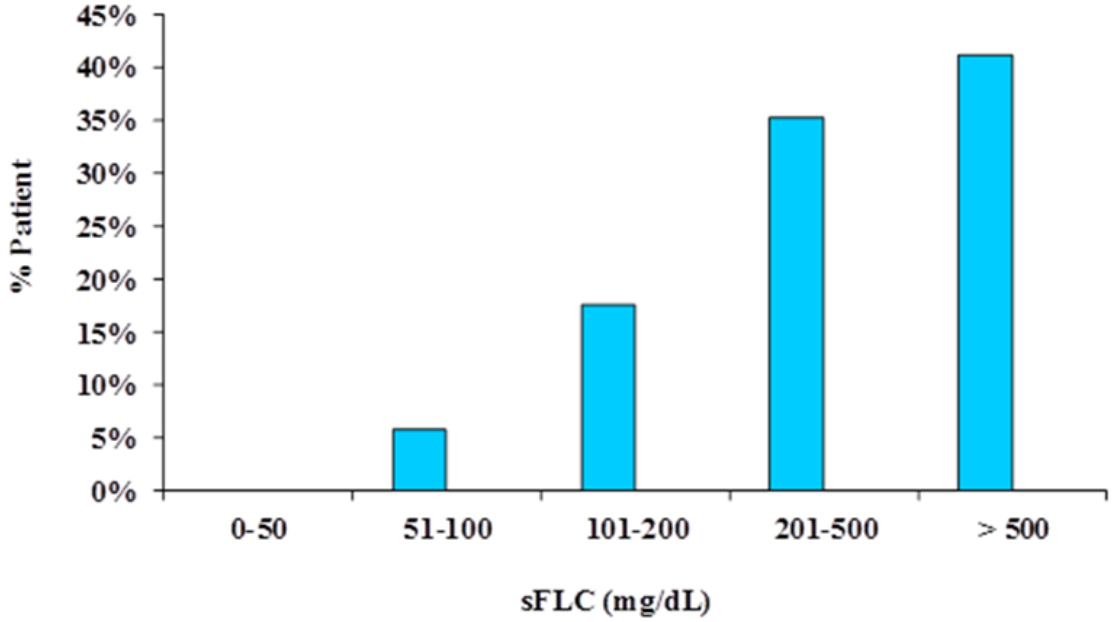
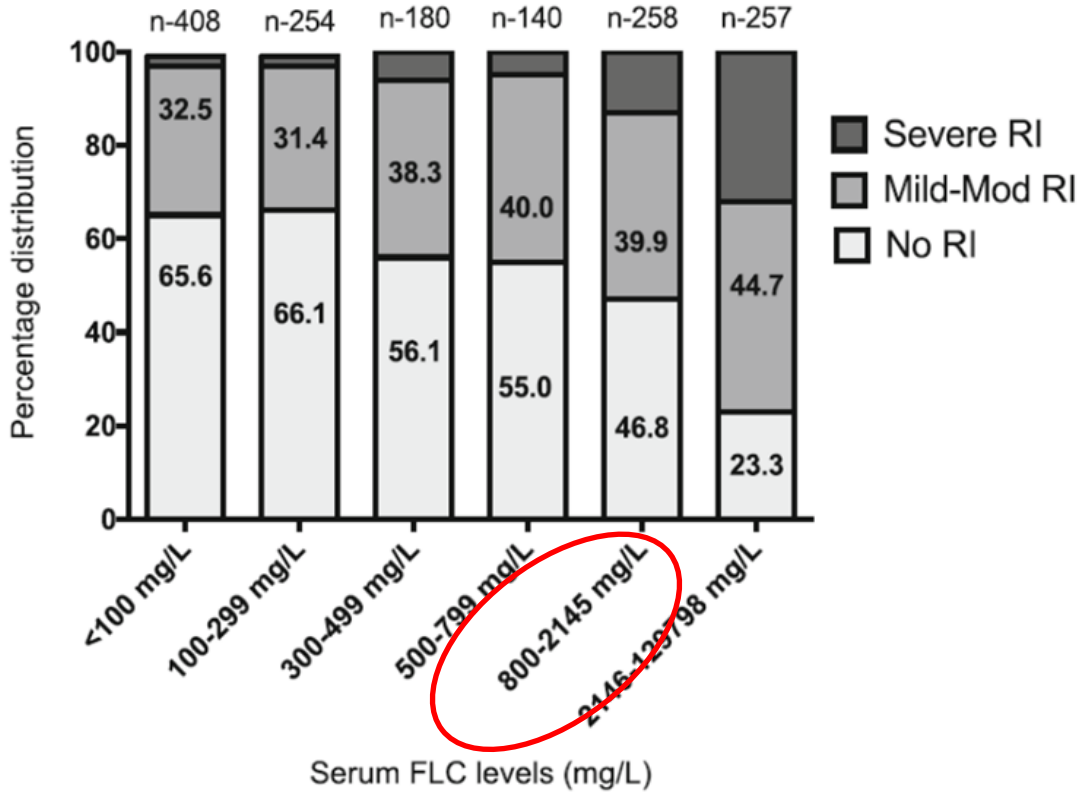
Risk of AKI and Cast Nephrology by sFLC level





Leung et al. Kidney Int 2008; Yadav et al. BMC Nephrol 2018

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Urinary FLC excretion and acute kidney injury

Urinary flc excretion, g/g creatinine	Patients with renal failure, no. (%)		
	IgG	IgA	LCO
0 g/g	28 (2)	29 (3)	0 (0)
Less than 4 g/g	48 (8)	46 (11)	22 (18)
4-12 g/g	13 (29)	12 (28)	18 (38)
More than 12 g/g	11 (48)	13 (48)	60 (54)

Drayson et al. Blood 2006

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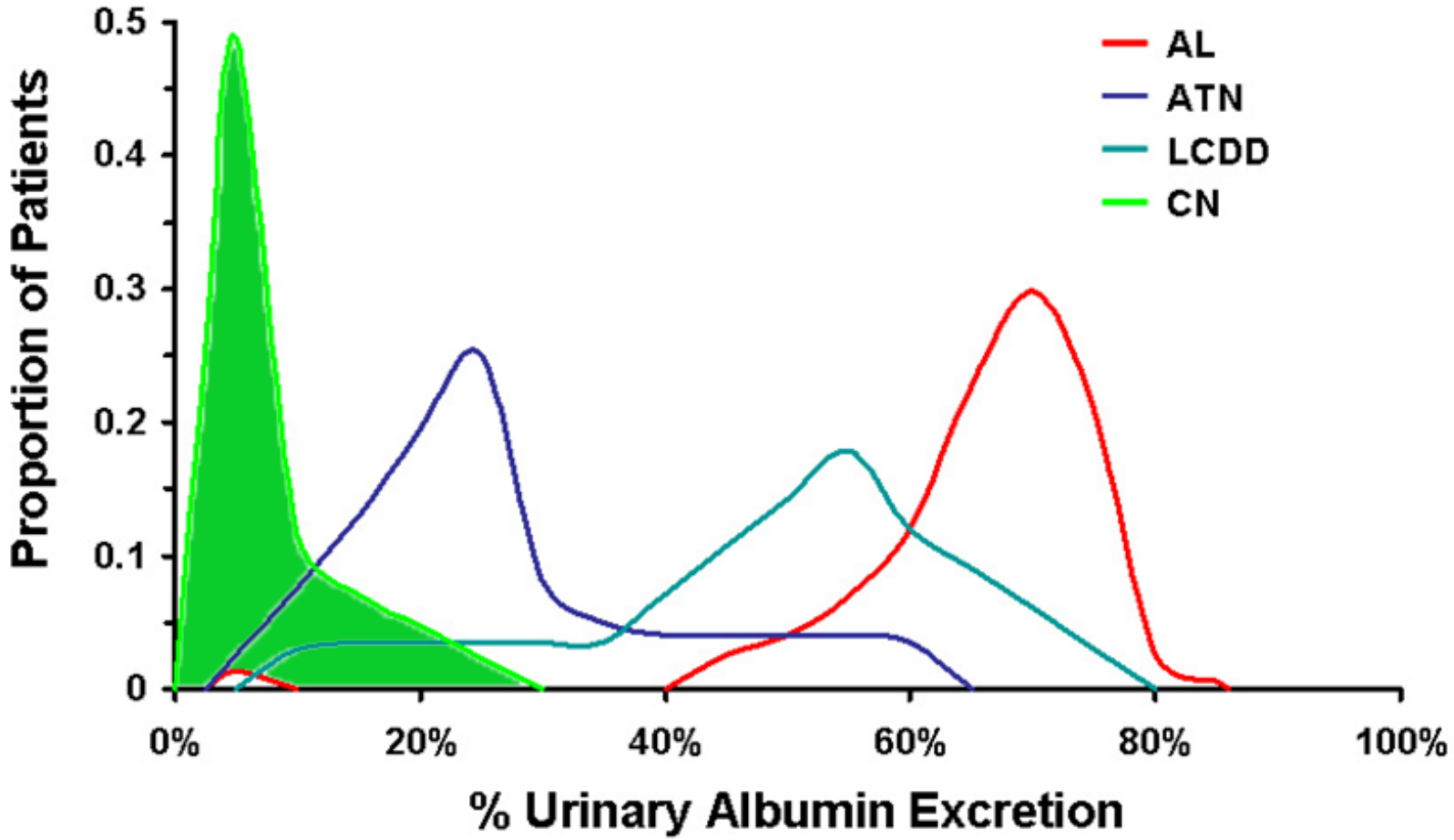
Urinary Albumin Excretion



Leung et al. CJASN 2012

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Diagnosis of LCCN

- Gold standard is kidney biopsy
- LCCN can be assumed if
  - Involved FLC > 50
  - < 10% albuminuria especially with urine M spike if > 200 mg/d

Rajkumar et al. Lancet Oncol 2014; Visram et al. Leukemia 2002

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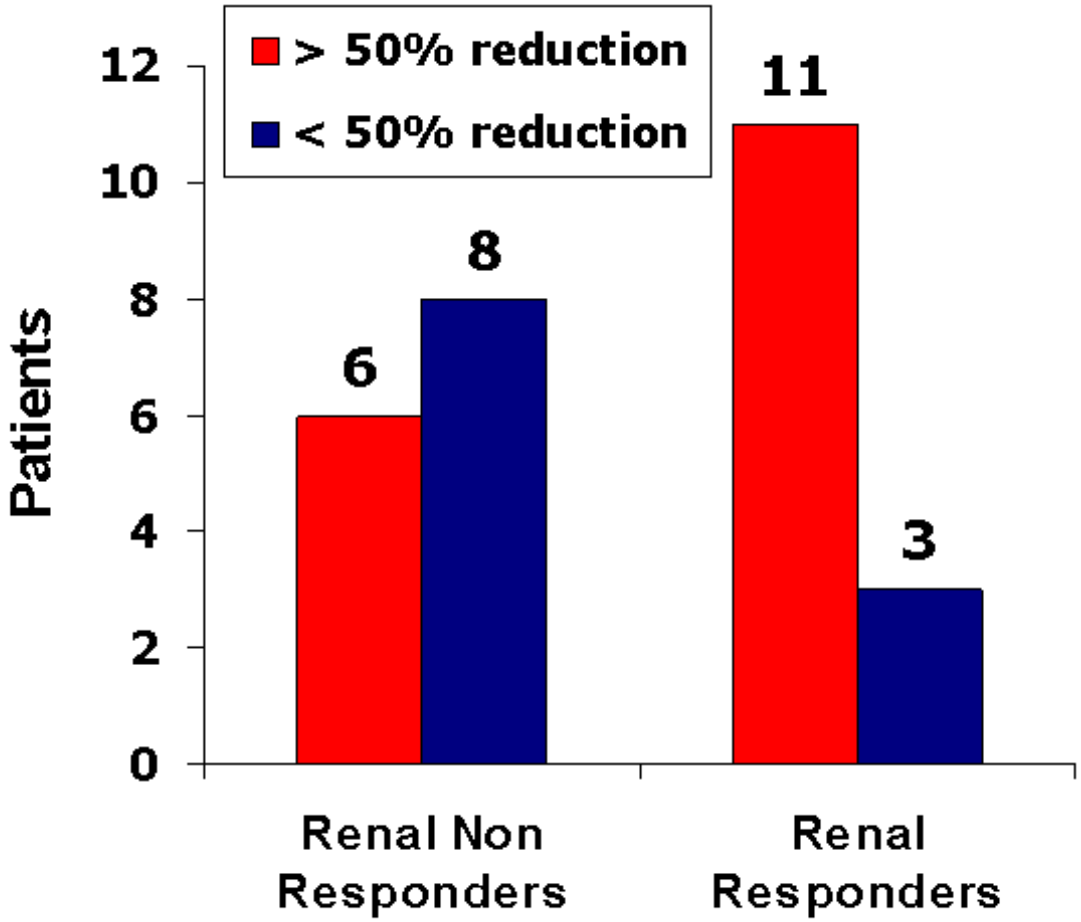
Recovery of renal function in light chain cast nephropathy is dependent on FLC reduction



Renal Recovery	Percentage FLC Reduction at Outcome[e]
No	n/a
No	n/a
No	n/a
No	n/a
No	n/a
Yes	96
Yes	81
Yes	83
Yes	50
Yes	90
Yes	60
Yes	65
Yes	86
Yes	93
Yes	87
Yes	87
Yes	79
Yes	82
Yes	97
Yes	97

Leung et al. Kidney Int 2008; Hutchison et al. J Am Soc Nephrol 2011

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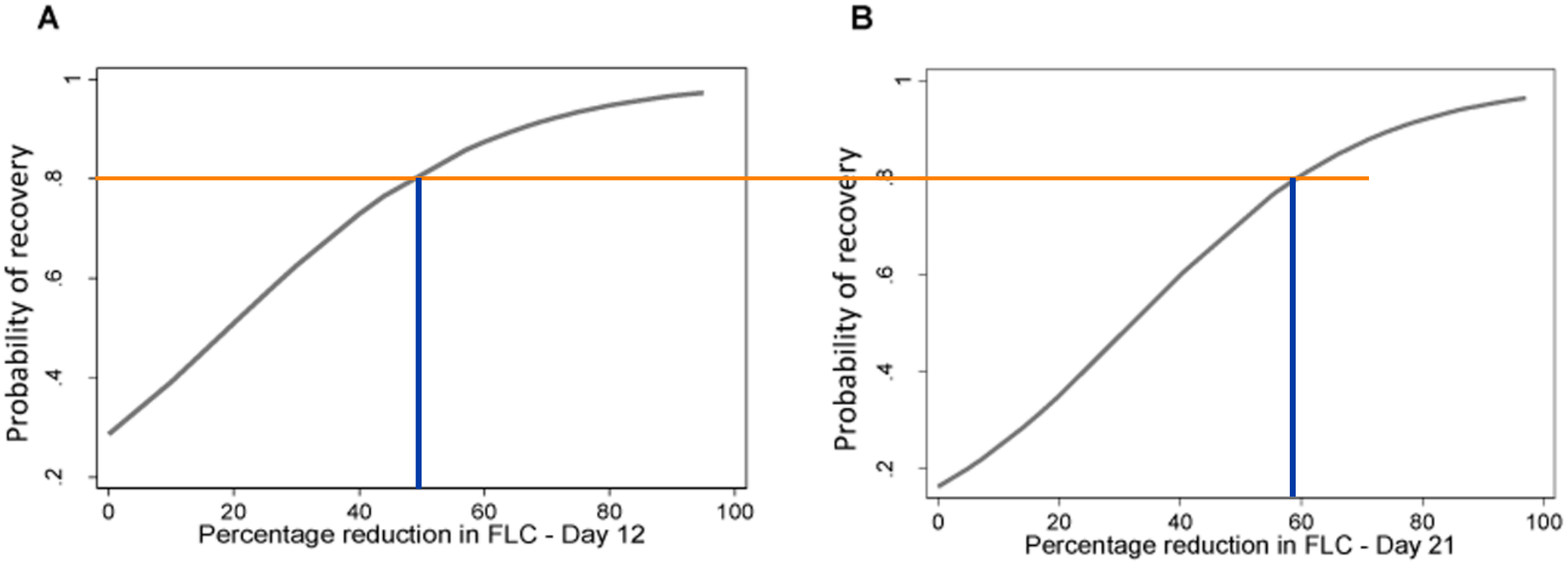
Probability of Renal Response by Depth and Speed of sFLC Reduction



Hutchison et al. J Am Soc Nephrol 2011

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Factors the predicts renal response

	Univariate Analyses		Multivariate Analysis	
Variable	**OR (95% CI)**	***P***	**OR (95% CI)**	***P***
Age ≥ 65 years	0.43 (0.22 to 0.82)	.011		
Preexisting MGUS	1,57 (0,65 to 3,77)	,31		
Entire Ig-secreting myeloma	1,44 (0,79 to 2,65)	,23		
Precipitating factor	1,82 (0,99 to 3,36)	,055		
Known preexisting CKD[a]	0,08 (0,017 to 0,36)	,001	0,59 (0,47 to 0,75)	< ,0001
Serum creatinine at random assignment	1,00 (0,99 to 1,00)	,009		
AKIN stage 3	0,52 (0,28 to 0,97)	,039	0,86 (0,75 to 0,98)	,026
sFLC < 500 mg/L after 1 cycle of chemotherapy	1,52 (0,81 to 2,85)	,19		
sFLC response within 6 months, %				
< 50	1,00 (reference)		1,00 (reference)	
50-90	9,84 (3,02 to 32,1)	,0001	1,44 (1,14 to 1,83)	,0027
> 90	4,20 (1,19 to 14,8)	,026	1,70 (1,37 to 2,10)	< ,0001
Random assignment in C-BD group	1,33 (0,73 to 2,43)	,36		

Bridoux et al. JCO 2020

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First use of PLEX in MM

- 29 yo male
- Scr = 13.8 mg/dL
- Melphalan alone
- Patient discontinued dialysis and return to work after 9 months

Feest et al. BMJ 1976

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Results of Plasma Exchange Trials

	Zucchelli	Johnson	Clark	Behrens
Patients	29	21	104	78
Biopsy	58.6%	76%	few	unknown
Dialysis	82.8%	57.1%	27.9%	61.5%
PLEX	5 daily, 7, 10	3x/wk	5-7/10 day	7/ 14 days
Chemo	CTX methylpred	MP	VAD	VAD
Renal response	**84.6% v 18.2%**	63.6% v 50%	57.9% v 69.2%	unknown
Dialysis ind	**84.6% v 18.2%**	**42.8% v 0**	66.7% vs 50%	44.7% vs 52.5%
Hem response	decreased BJP	decreased BJP	not mentioned	not mentioned

Johnson et al. Arc Int Med 1990; Clark et al. Ann Int Med 2007
Zucchelli et al. Kidney Int 1988, Behrens et al. eHaem 2023

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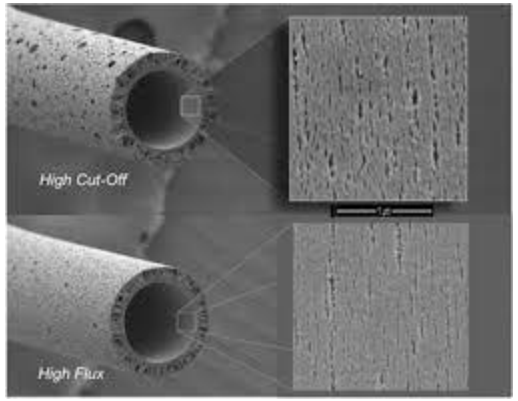
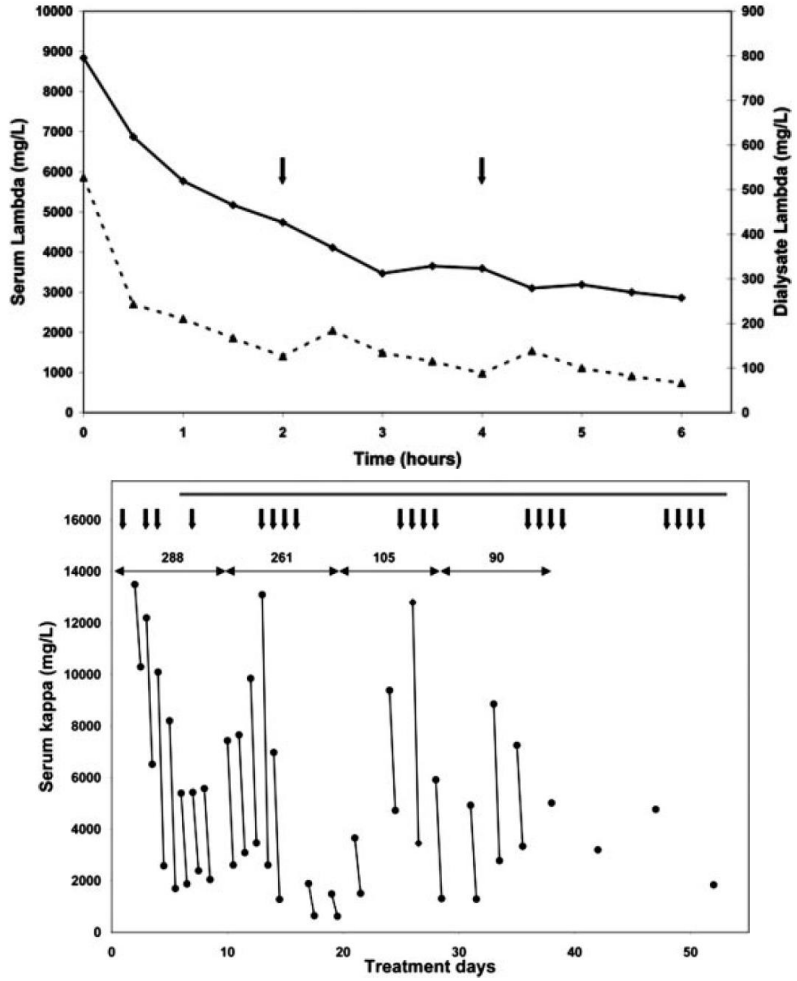
Efficient Removal of Immunoglobulin Free Light Chains by Hemodialysis for Multiple Myeloma: *In Vitro* and *In Vivo* Studies



Pore size - 50 kd



Hutchison et al. JASN 2007

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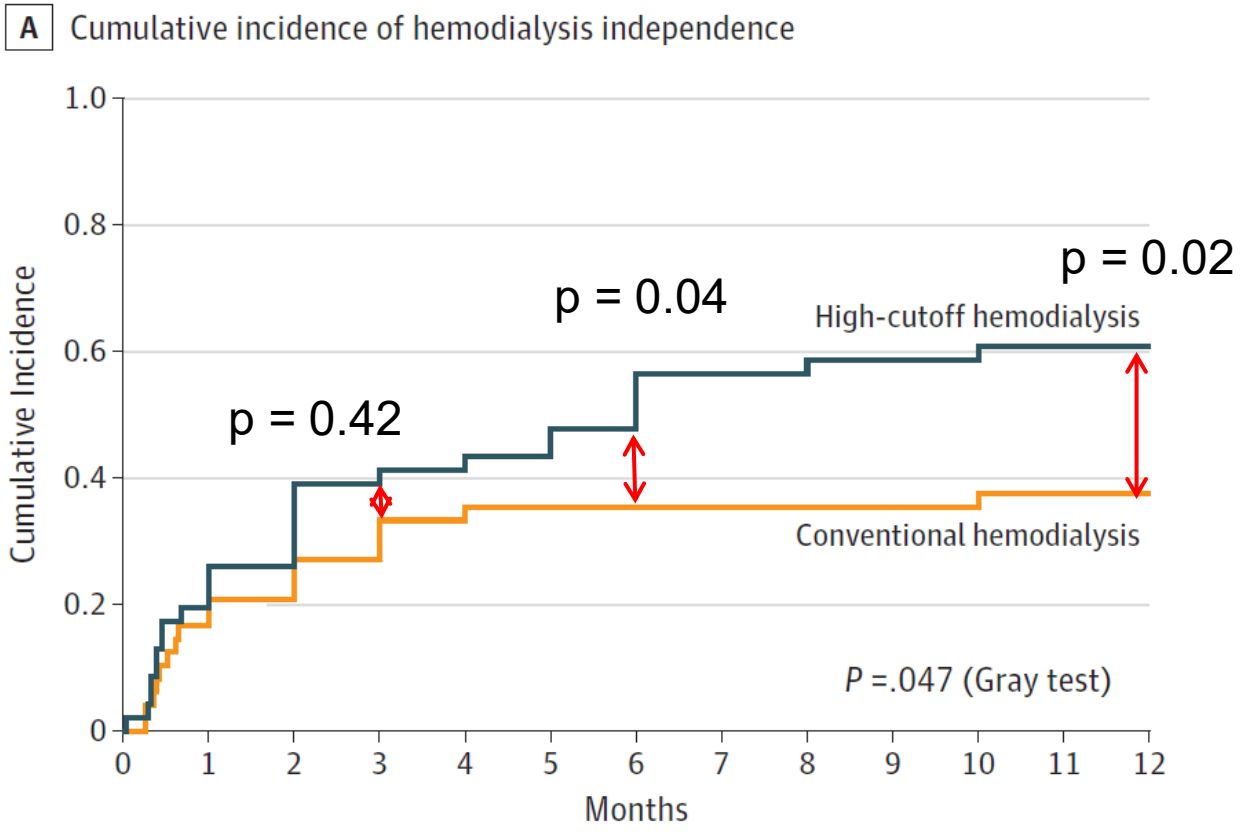
MYRE Trial



No. at risk				
High-cutoff hemodialysis	46	28	22	14
Conventional hemodialysis	48	31	26	21

Bridoux et al. JAMA 2017

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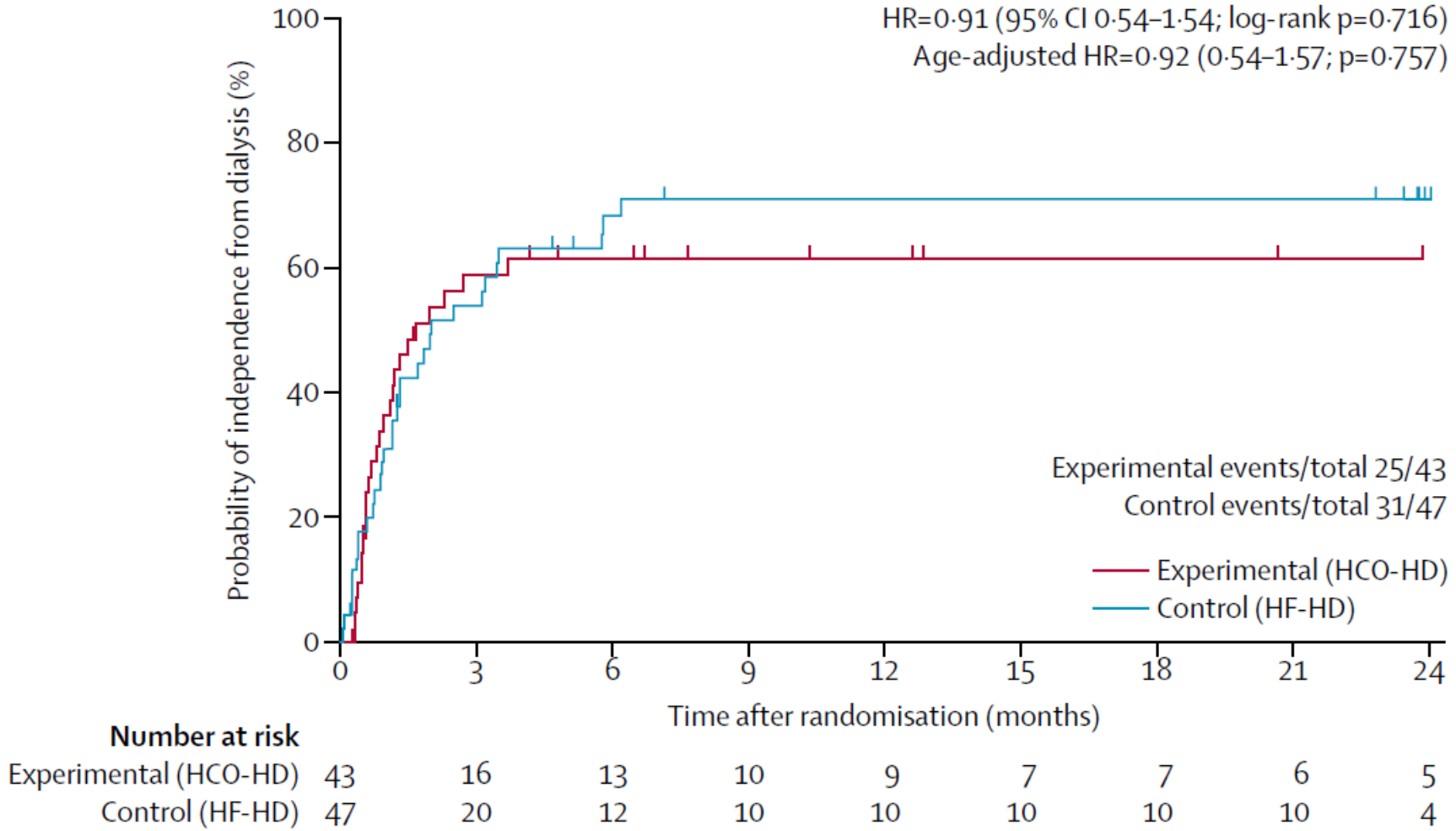
EuLITE trial



Hutchison et al. Lancet Haematol 2019

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Hematologic responses in the HCO trials

EuLITE

	6 months*		12 months†	
	HCO-HD (n=43)	HF-HD (n=47)	HCO-HD (n=43)	HF-HD (n=47)
Complete response	6 (14%)	14 (30%)	12 (28%)	16 (34%)
Very good partial response	10 (23%)	15 (32%)	3 (7%)	13 (28%)
Partial response	11 (26%)	5 (11%)	3 (7%)	3 (6%)
Stable disease	1 (2%)	0	3 (7%)	1 (2%)
Progressive disease	3 (7%)	3 (6%)	8 (19%)	3 (6%)
Not assessed	3 (7%)	1 (2%)	2 (5%)	2 (4%)
Death or withdrawal	9 (21%)	9 (19%)	12 (28%)	9 (19%)

MYRE

	No. (%) of Patients[a]	
	High-Cutoff Hemodialysis (n = 46)	Conventional Hemodialysis (n = 48)
Primary Outcome		
Cumulative hemodialysis independence within 3 mo	19 (41.3)	16 (33.3)
Secondary Outcomes		
Cumulative hemodialysis independence within 6 mo	26 (56.5)	17 (35.4)
Cumulative hemodialysis independence within 12 mo	28 (60.9)	18 (37.5)
Time to hemodialysis independence, median (IQR), mo	2.0 (0.4 to 5.7)	1.0 (0.4 to 3.0)
Alive without hemodialysis at 12 mo, No./total (%)	24/37 (64.9)	17/38 (44.7)
Hematologic response after first chemotherapy cycle		
Reduction in serum-free light chain, median (IQR), %	89 (61 to 99)	71 (22 to 91)
Serum-free light chain level <500 mg/L	20 (43.5)	15 (31.2)
Hematologic response at 3 mo		
Overall[b]	41 (89.1)	30 (62.5)
Very good partial or complete	28 (60.9)	21 (43.7)
Hematologic response at 6 mo		
Overall[b]	36 (78.3)	29 (60.4)
Very good partial or complete	32 (69.6)	23 (47.9)

Hutchison et al. Lancet Haematol 2019

Bridoux et al. JAMA 2017

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Adverse events in EuLITE

	HCO-HD	HF-HD	Total
Between 0 and 90 days*			
Infections	26 (58%)	13 (39%)	39 (50%)
Catheter-related	5 (11%)	3 (9%)	8 (10%)
Lung	14 (31%)	3 (9%)	17 (22%)
Sepsis	1 (2%)	2 (6%)	3 (4%)
Other	6 (13%)	5 (15%)	11 (14%
Not infections	19 (42%)	20 (61%)	39 (50%)
Cardiovascular and thrombotic	3 (7%)	3 (9%)	6 (8%)
Gastrointestinal	3 (7%)	1 (3%)	4 (5%)
Haematological	0	0	0
Musculoskeletal	5 (11%)	3 (9%)	8 (10%)
Neurological	1 (2%)	1 (3%)	2 (3%)
Other organ systems	7 (16%)	12 (36%)	19 (24%)

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Hutchison et al. Lancet Haematol 2019

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VISTA
MP vs VMP

	VMP		MP	
	Normal	RI	Normal	RI
ISS III	21%	62%	22%	54%
≤ 30 ml/min		84%		80%
Overall Response	72%	68%	29%	46%
CR	30%	31%	3%	5%
≤ 30 ml/min		37%		13%
First response	1.4m	1.0m	4.9m	3.4m
Median TTP	NE	19.9m	18.0m	16.1m
Median OS	NE	NE	NE	31.9m

* Serum Cr ≤ 2.0 mg/dL

Dimopoulos et al. JCO 2009

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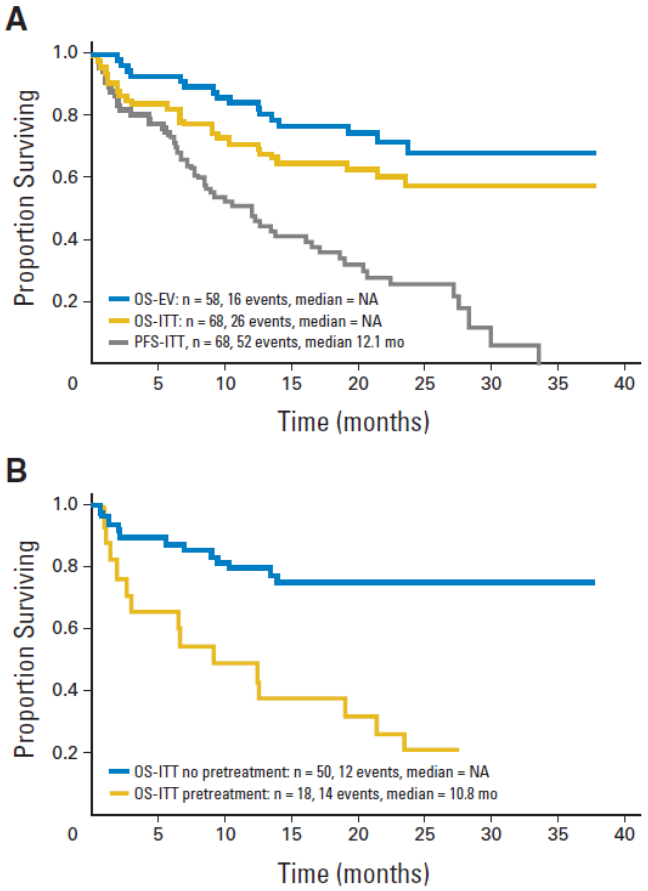
Phase II Trial with bortezomib doxorubicin dexamethasone in patients with acute renal failure

- Inclusion criteria
  - eGFR < 60 ml/min/1.73m^2
  - ARF must occurred <4 weeks
- Treatment
  - Bortezomib 1.3 mg/m^2 on Day 1,4,8,11
  - Doxorubicin 9 mg/m^2 Day 1,4,8,11
  - Dexamethasone 40 mg on Day 1,4,8,11
  - After first 5 patients, doxorubicin was given only on Day 1 and 4 and bortezomib was reduced to 1.0 mg/m^2



Ludwig et al. JCO. 2010

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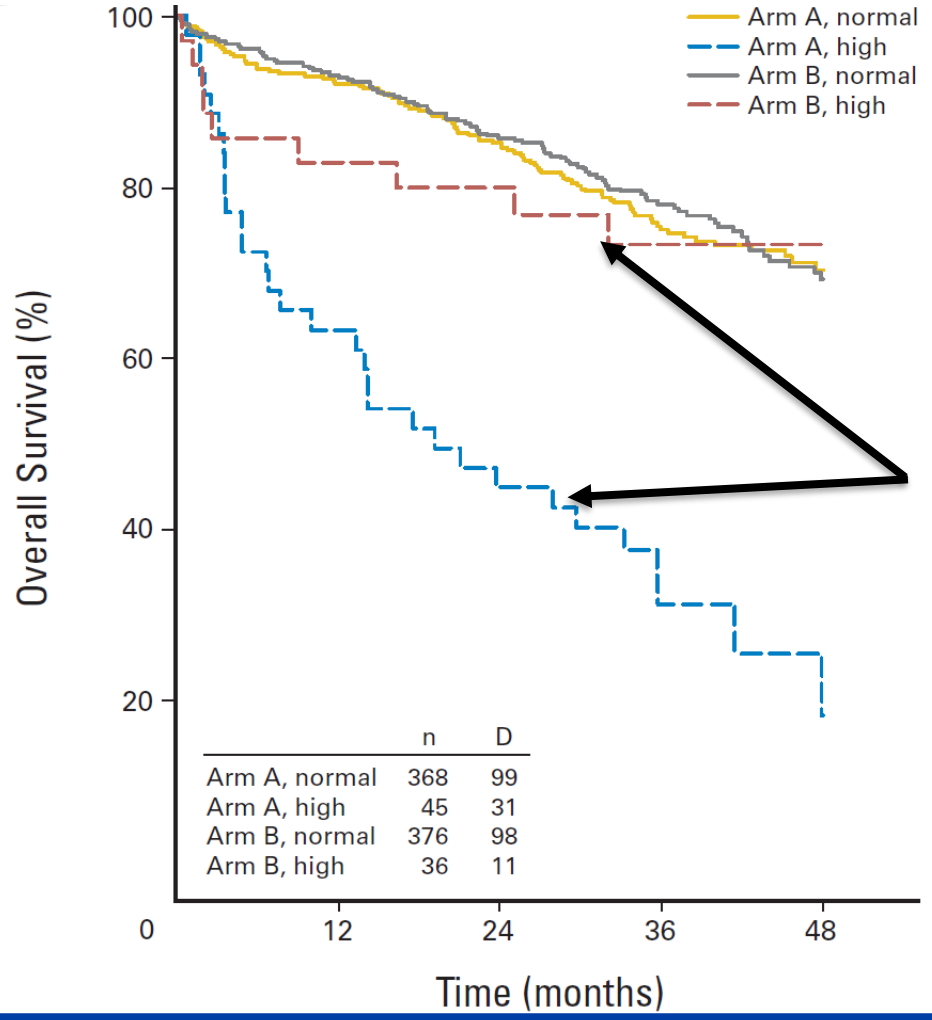
Bortezomib before and after autologous stem cell transplantation overcomes the negative prognostic impact of renal impairment in newly diagnosed multiple myeloma: a subgroup analysis from the HOVON-65/GMMG-HD4 trial

Bortezomib Adriamycin dexamethasone (PAD)
vs Vincristine Adriamycin dexamethasone (VAD)



Patients with high serum creatinine

Scheid et al. Haematologica 2014

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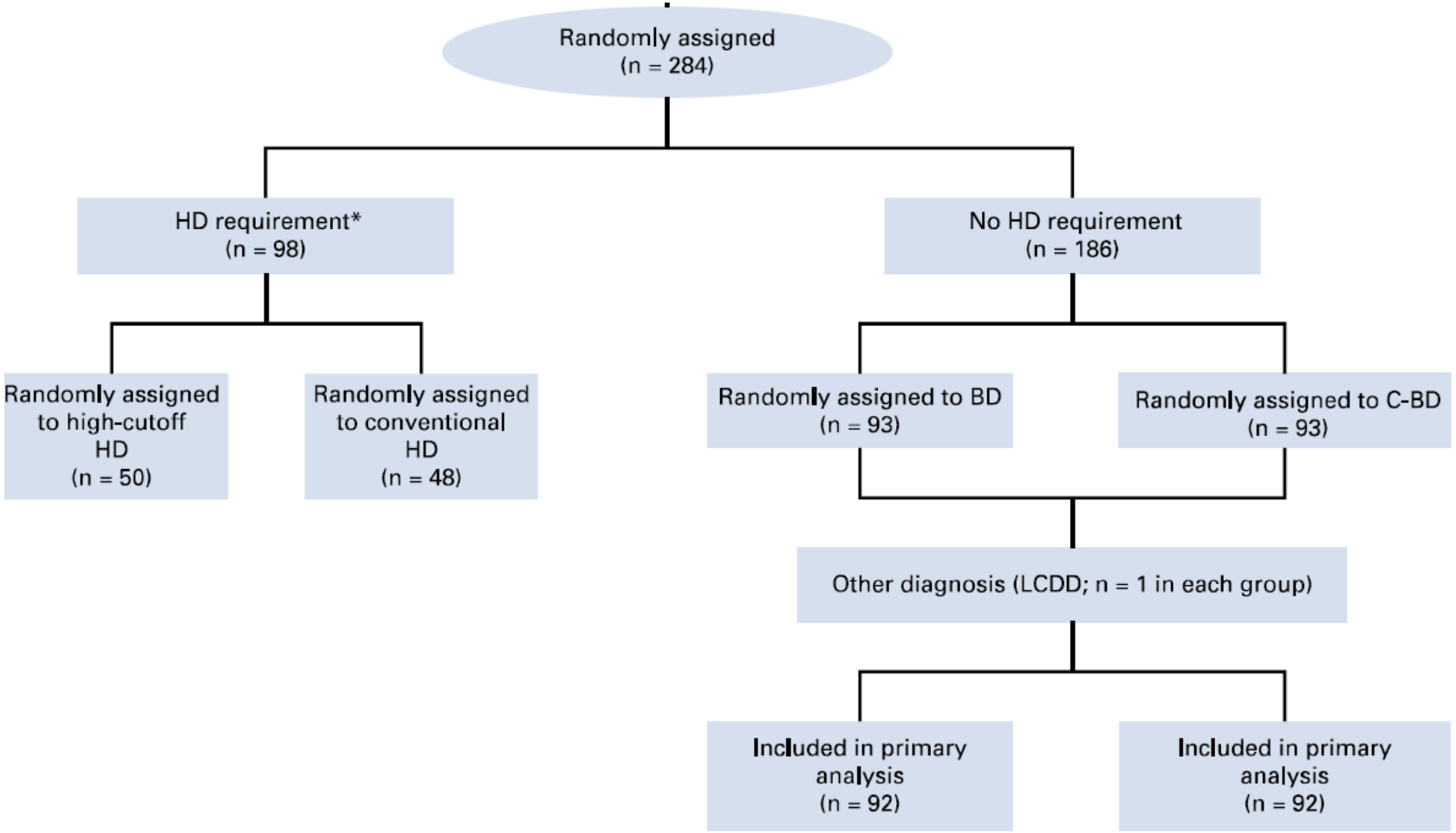
Randomized Trial Comparing Double Versus Triple Bortezomib-Based Regimen in Patients With Multiple Myeloma and Acute Kidney Injury Due to Cast Nephropathy



Bridoux et al. JCO 2020

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Hematologic and renal response

	BD	CBD
3m Hem Response	78.3%	77.2%
VGPR/CR (3m)	39.1%	51.1%
VGPR/CR (6m)	46.8%	53.3%
After cycle 1		
iFLC reduction	86%	88%
<500 mg/L	75.0%	72.8%
TTNT	7m	11.5m
Renal response (3m)	44.6%	51.1%
Renal response (6m)	55.4%	60.9%
Renal response (12m)	53.9%	57.3%

Bridoux et al. JCO 2020

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Studies	Pts	OR	≥VGPR	early deaths
Moreau	≤65			
VCD		83.4%	56.2%	1.7%
VTD		92.3%	66.3%	1.2%
Moreau	≤65			
VD		77%	36%	0%
vtD		90%	49%	0%
Mai	≤70			
VCD		78.1% (79.5%)	37.0% (59%)	0.4%
BDD		72.1% (59.5%	34.3% (43.2%)	2.4%
HOVON 65	≤65			
VAD		54% (64%)	14% (40%)	8.8%
BDD		78% (86%)	42% (78%)	5.6%
Bridoux	AKI (60 – 74)			
VD		78.3%	39.1%	2.2%/9.8%
VCD		77.2%	51.1%	6.5%/10.9%

Bridoux et al. JCO 2020; Mai et al. Leukemia 2015; Moreau et al. Blood 2011; Moreau et al. Blood 2016; Scheid et al. Haematologica 2014; Sonneveld et al. JCO 2012

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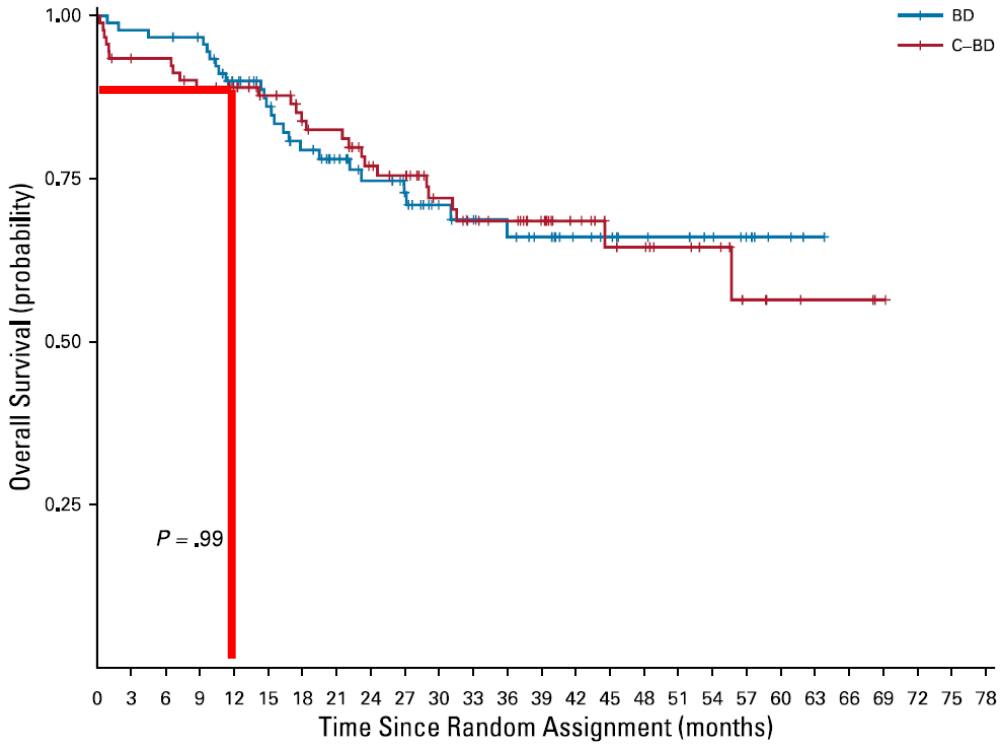
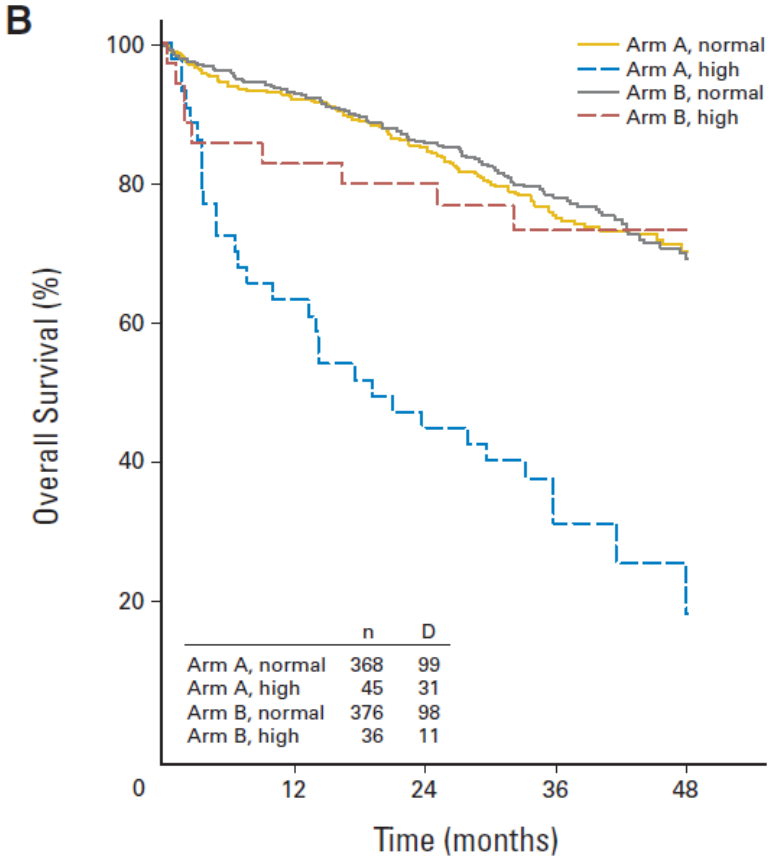
Survival of myeloma with renal impairment remains inferior despite novel agents





Bridoux et al. JCO 2020; Sonneveld et al. JCO 2012

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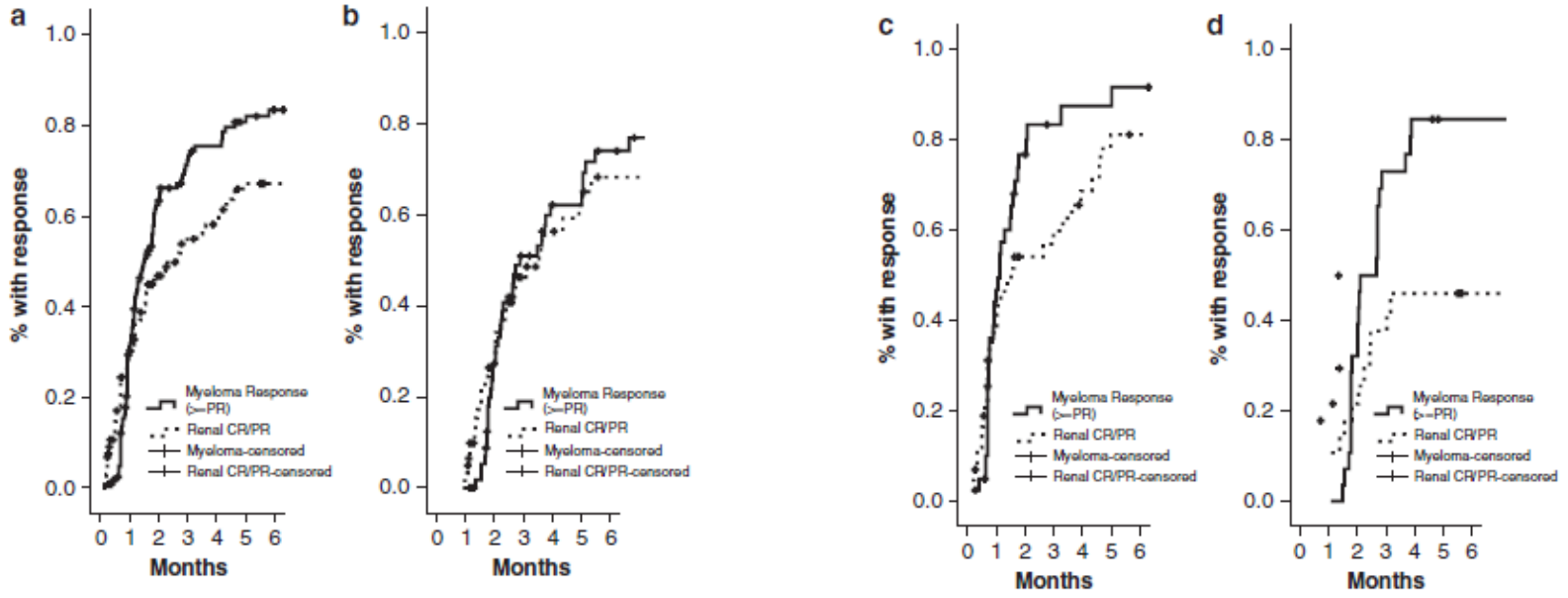
Not all novel agents are the same when it comes to renally impaired patients

thalidomide bortezomib lenalidomide



	Thalidomide	*Bortezomib*	*Lenalidomide*	P-*value*
Baseline eGFR (ml/min/1.73 m^2), median(range)	38 (6–59)	21 (4–59)	37 (6–58)	0.037
Best eGFR (ml/min/1.73 m^2), median(range)	69 (16–140)	77 (5–175)	45 (15–106)	0.2
Renal response (⩾renalMR)	46 (74%)	35 (81%)	17 (61%)	0.153
Major renal response (⩾renalPR)	34 (55%)	33 (77%)	12 (43%)	0.011
RenalCR	33 (53%)	29 (67%)	10 (36%)	0.032
Baseline eGFR (ml/min/1.73 m^2) for patients who achieved renalCR, median (range)	44 (6–58)	27 (5–59)	49 (15–58)	
Best eGFR (ml/min/1.73 m^2) for patients who achieved renalCR, median (range)	86 (64–139)	91 (61–175)	85 (65–106)	

Dimopoulos et al. Leukemia 2013

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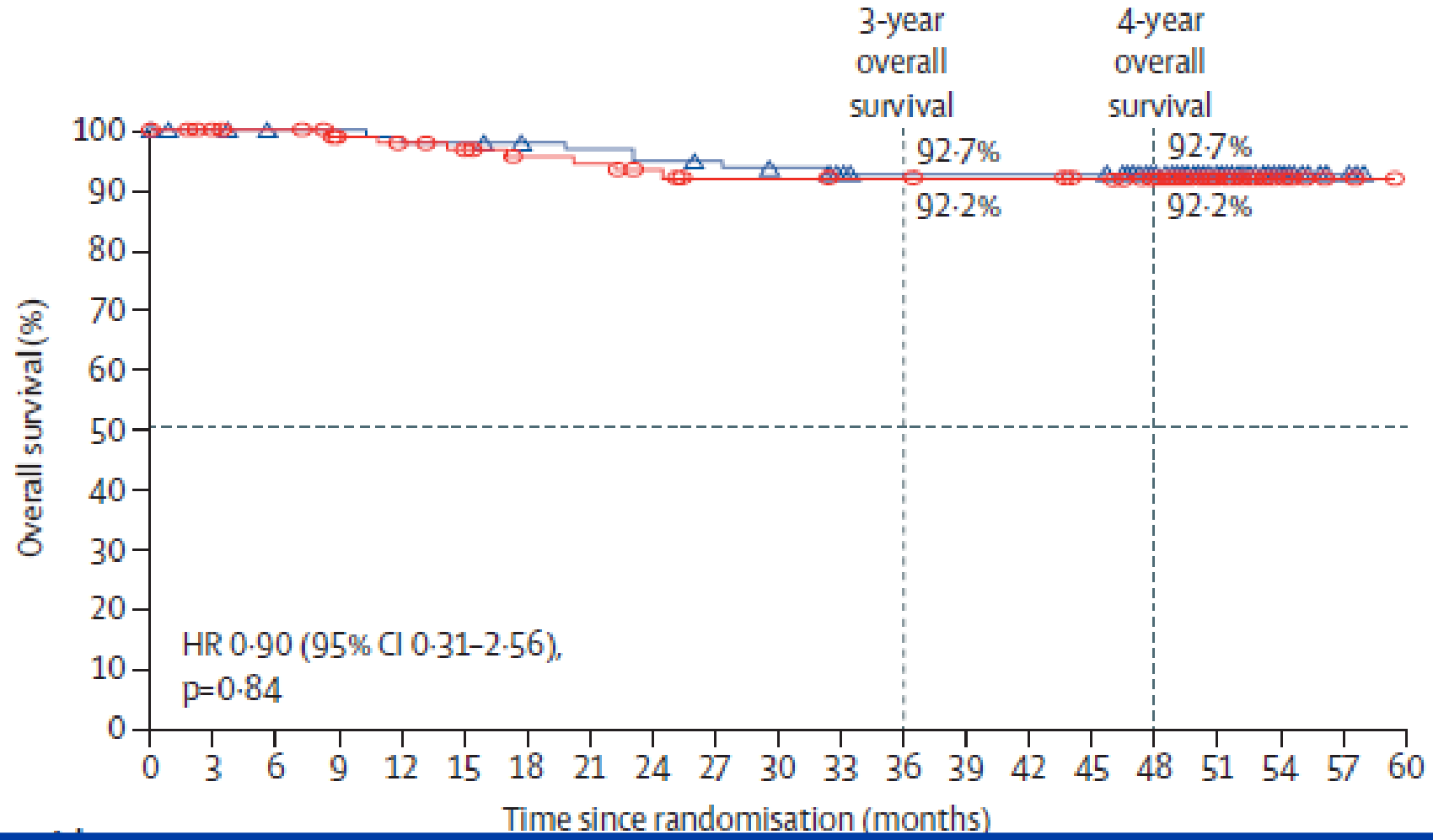
GRIFFIN (VRD vs DaraVRD)



Voorhees et al. Lancet Hematol 2022

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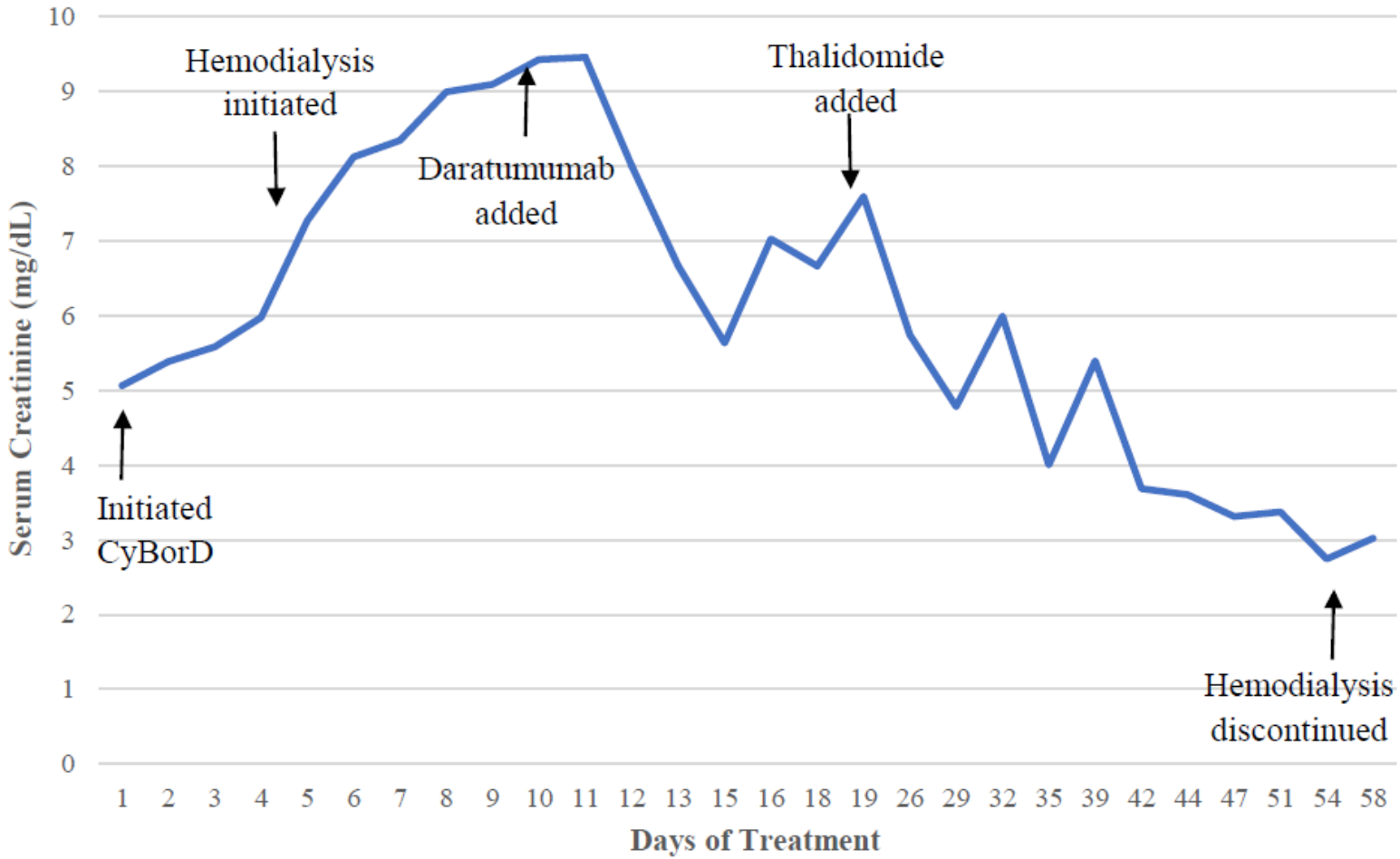
Dialysis Independence Following Combination Daratumumab, Thalidomide, Bortezomib, Cyclophosphamide, and Dexamethasone in Multiple Myeloma With Severe Renal Failure



Moore et al. Clin Lymphoma, Myeloma & Leukemia 2020

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Effect of daratumumab on light chain reduction in newly diagnosed multiple myeloma with light chain cast nephropathy.

Juan Esteban Velez-Hernandez, Mateo Mejia Saldarriaga, Mark Bustoros, Roger Niles Pearse, Ruben Niesvizky, Jorge Monge Urrea; Weill Cornell Medicine, New York, NY

	Dara (n = 19)	Non-Dara (n = 32)	Total (n = 51)
Age, median (IQR)	70 (60-80)	68 (54-75)	68 (56-77)
Female, n (%)	7 (37%)	14 (44%)	21 (41%)
ISS 3, n (%)	19 (100%)	25 (78%)	44 (86%)
eGFR at diagnosis, median (IQR)	16.3 (10.6-22.8)	18.6 (6.4-25.1)	17.3 (8.3-24.7)
iFLC, median (IQR)	869 (356-1258)	1200 (743-1456)	1155 (490-1435)
Cyclophosphamide-containing regimens, n (%)	6 (32%)	26 (81%)	32 (63%)
Hematologic response at d30, n (%)	17 (89%)	23 (72%)	40 (78%)
FLC-R at d30, n (%)	11 (58%)	10 (31%)	21 (41%)
RR at d90*, n (%)	11 (69%)	15 (58%)	26 (62%)

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Early daratumumab therapy improves renal outcomes in newly diagnosed patients with myeloma admitted with kidney injury

Characteristics	N = 20
Age at diagnosis, y	
Median (range)	65 (44-87)
Subgroup, n (%)	
18 to <65	10 (50)
≥65 to <75	7 (35)
≥75	3 (15)
Male, n (%)	9 (45)
Peak SCr at admission, median (range), mg/dL	6.5 (3.1-17.8)
eGFR (CKD-EPI), median (range), mL/min per 1.73 m^2	8 (2-16)
Requiring dialysis during hospitalization, n (%)	9 (45)
Peak involved sFLC at diagnosis, median (range), mg/L	6603 (1839-26 023)
HRCAs*, n (%)	
0	9 (45)
1	9 (45)
≥2	2 (10)
Extramedullary disease, n (%)	2 (10)

- DaraVCD – 11, DaraVD – 9
- All patients had ≥ 50% FLC reduction with a median of 3 days
- Median time to FLC ≤ 500 mg/L was 14.5 days
- ≥≥VGPR – 90%
- Renal response at 3m = 85%
- At 3m 4 of 9 and at 12m 6 of 9 achieved dialysis independence

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Kim et al. Blood Adv 2025

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Beyond Novel Agents

1. Antibody conjugate
2. CAR-T cell therapy
3. Bispecific antibodies

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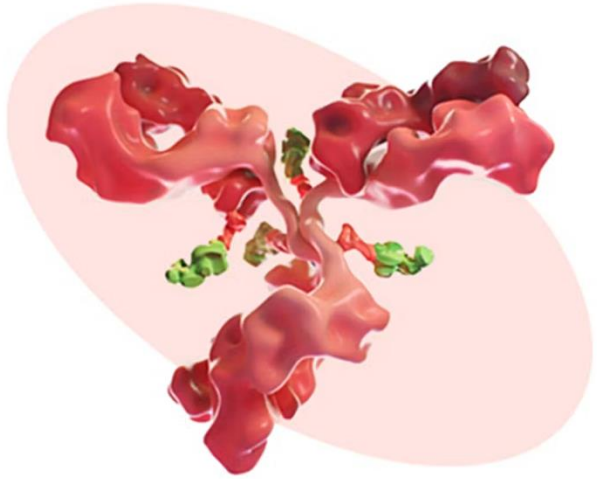
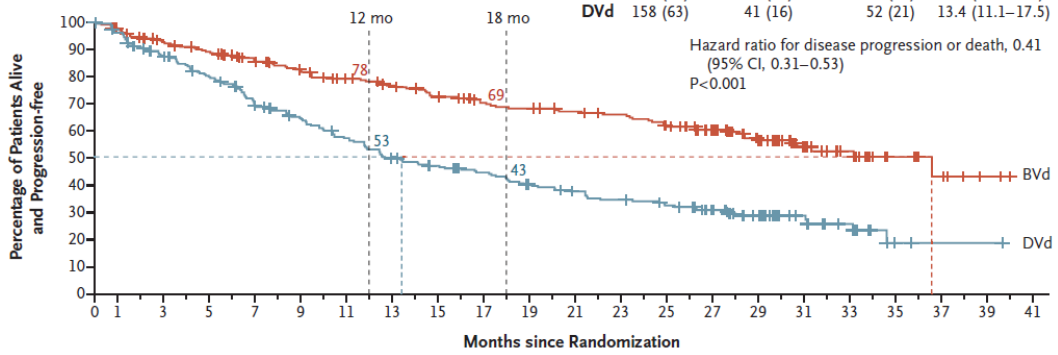
Antibody conjugate: Belantamab



	Patients with an Event	Patients with Censored Data, Follow-up Ended	Patients with Censored Data, Follow-up Ongoing	Median Progression-free Survival (95% CI)
		no. (%)		*mo*
BVd	91 (37)	44 (18)	108 (44)	36.6 (28.4–NR)
DVd	158 (63)	41 (16)	52 (21)	13.4 (11.1–17.5)



- Targets BCMA
- FDA approved in 2025 for RRMM with bortezomib dexamethasone
  - DREAMM-7 BeVd vs DVd
  - PFS – 31.3m vs 10.4m
- Toxicity
  - Ocular toxicity (keratopathy) – 92%
  - Grade 3/4 – 77% requiring dosing reduction

Hungria et al. Blood Adv 2025

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Belantamab in Renal Impairment or LCCN

- Renal impairment
  - DREAMM-2
    - Patients with eGFR > 30 ml/min/1.73 m^2 were allowed
    - 5 patients had eGFR between 15 and 30
    - No differences in response or AE
    - Lower eGFR is being explored in DREAMM-12
- LCCN
  - No data

MAYO CLINIC

Lonial et al. Lancet 2020

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Bispecific antibodies

- BCMA
  - Teclistamab
  - Elranatamab
  - Linvoseltamab
- GPRC5D
  - Talquetamab
- FcRL5
  - Cevostamab (in trial)
- Trispecific antibodies
  - In development

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Renal impairment and LCCN (BCMA)

- Teclistamab
  - 384 patients with CrCl < 40
  - 5% were dialysis dependent
  - Adverse events
    - CRS: 51% v 59%, p = NS
    - ICANS: 16% v 15%, NS
    - Infections: 33% v 46%,p = 0.06
    - Dialysis
      - CRS – 56%
      - ICANS – 17%
- Elranatamab
  - Safe in dialysis (case reports)
    - Ogiya et al. Ann of Hem 2025
    - Van de Wyngaert et al. Clin Hem Int 2024
- Linvoseltamab
  - No information
- LCCN
  - No data

Dima et al. Blood Adv 2025

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AKI with Teclistamab

- 34 patients treated with Teclistamab vs 30 with CAR T
- AKI
  - Teclistamab – 22%
  - CAR T – 13%
  - AKI stages
    - 1 – n = 6
    - 2 − n = 3
    - 3 − n = 1
  - No association with CRS

Charkviani et al. NDT 2025

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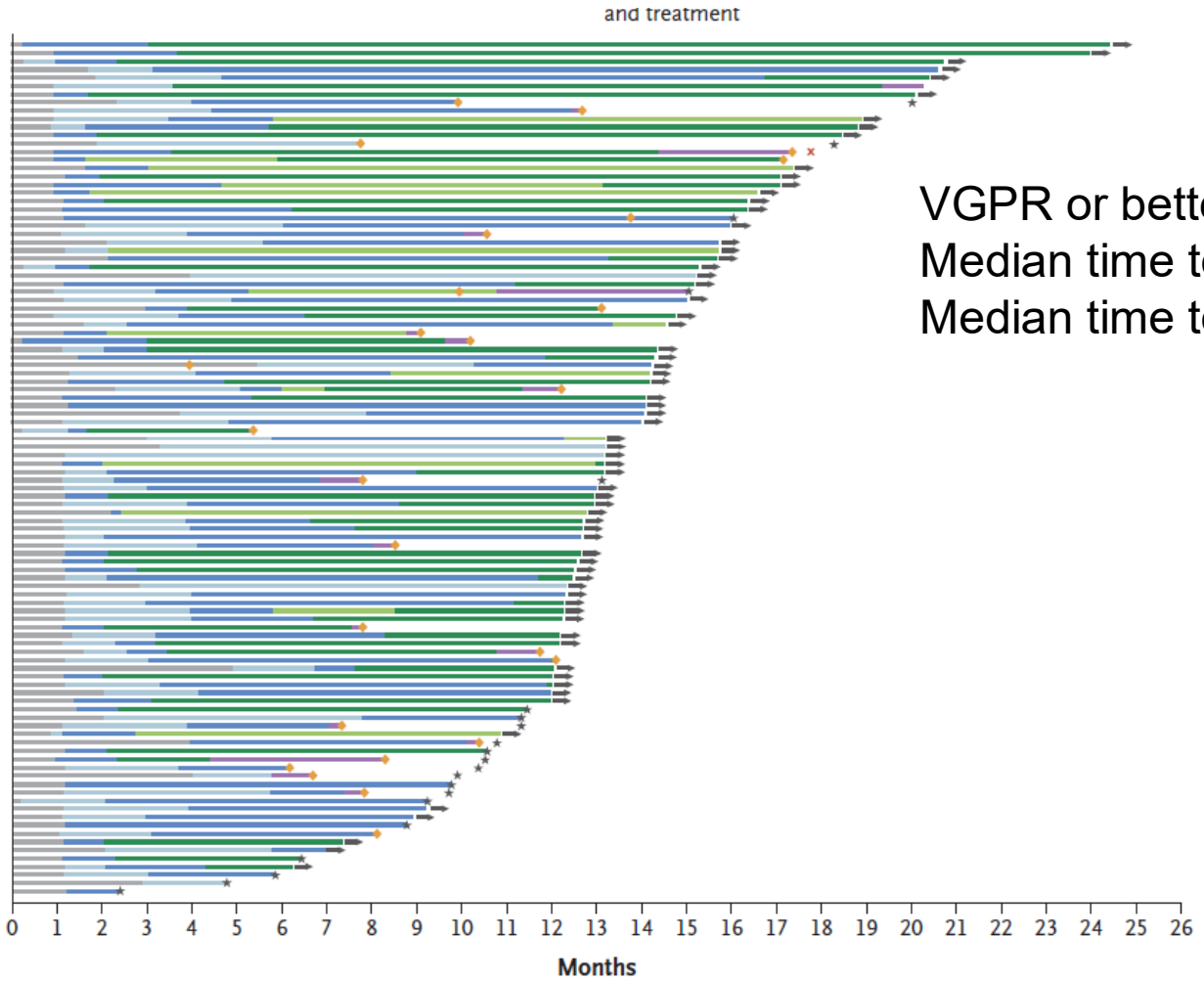
Rapid response with Teclistamab



VGPR or better – 58.8%
Median time to first response – 1.2 m
Median time to best response – 3.8 m

Moreau et al. NEJM 2022

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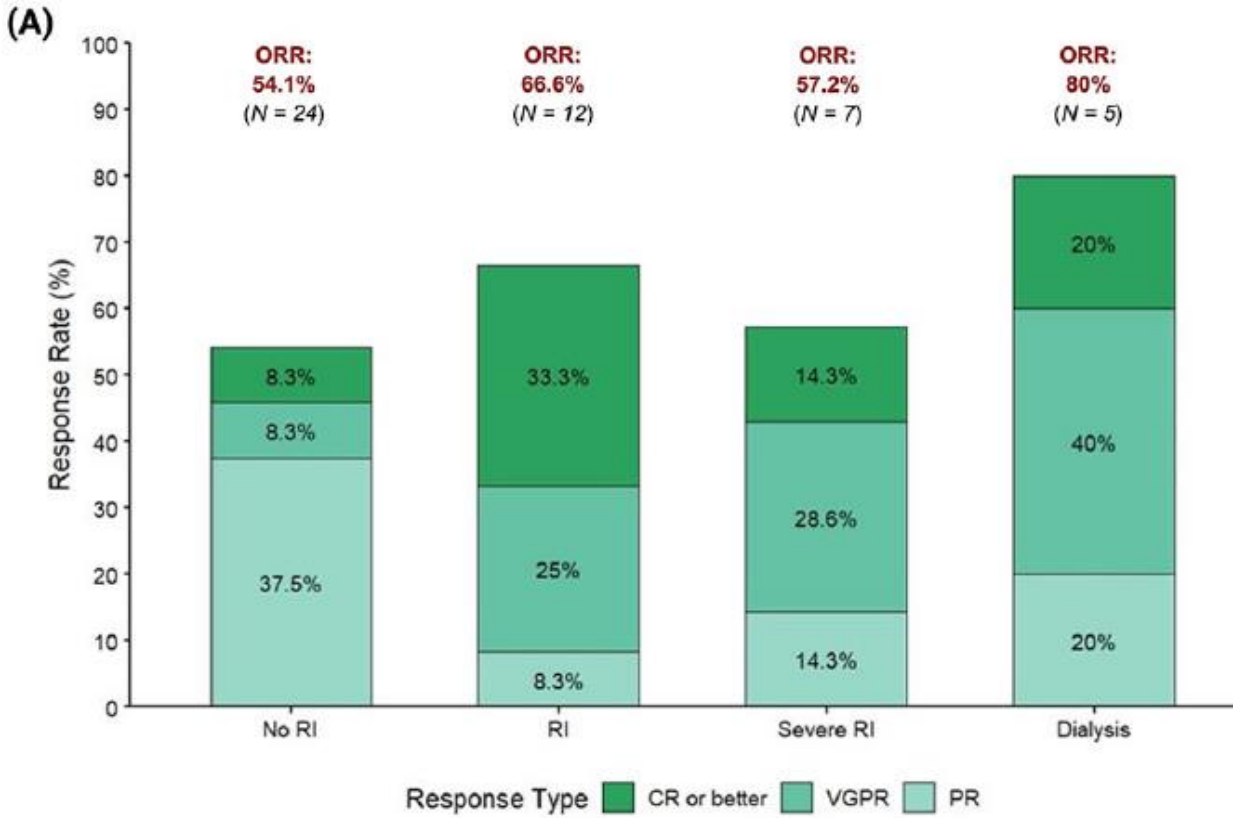
Renal impairment (GPRC5D)

- Single center study
  - No RI = 24
  - RI = 12 patients, 5 were on dialysis
- AE
  - CRS – 66.7% both groups
  - ≥ grade 3 – 8.3% both groups
  - ICANS – 16.7% RI vs 20.8%
  - Bacterial infections – 8.3% RI vs 16.7%
  - Dysgeusia – 83% both groups
  - Skin – 75% RI vs 58.3%
  - Nail – 83.3% RI vs 54.2%



Ali et al. Blood Cancer J 2026

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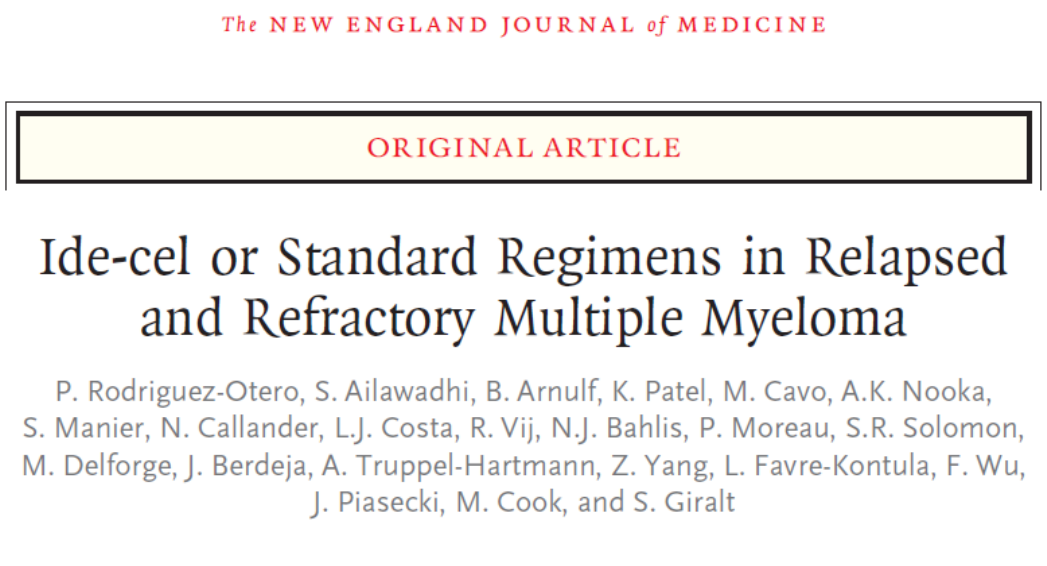
CAR T cell therapy approved for relapsed or refractory MM

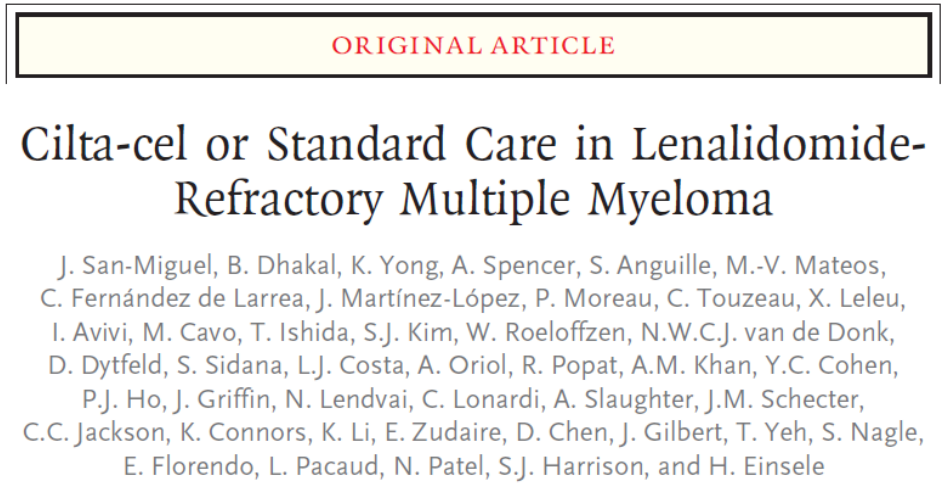


The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Ide-cel or Standard Regimens in Relapsed and Refractory Multiple Myeloma

P. Rodriguez-Otero, S. Ailawadhi, B. Arnulf, K. Patel, M. Cavo, A.K. Nooka, S. Manier, N. Callander, L.J. Costa, R. Vij, N.J. Bahlis, P. Moreau, S.R. Solomon, M. Delforge, J. Berdeja, A. Truppel-Hartmann, Z. Yang, L. Favre-Kontula, F. Wu, J. Piasecki, M. Cook, and S. Giralt



The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Cilta-cel or Standard Care in Lenalidomide-Refractory Multiple Myeloma

J. San-Miguel, B. Dhakal, K. Yong, A. Spencer, S. Anguille, M.-V. Mateos, C. Fernández de Larrea, J. Martínez-López, P. Moreau, C. Touzeau, X. Leleu, I. Avivi, M. Cavo, T. Ishida, S.J. Kim, W. Roeloffzen, N.W.C.J. van de Donk, D. Dytfeld, S. Sidana, L.J. Costa, A. Oriol, R. Popat, A.M. Khan, Y.C. Cohen, P.J. Ho, J. Griffin, N. Lendvai, C. Lonardi, A. Slaughter, J.M. Schecter, C.C. Jackson, K. Connors, K. Li, E. Zudaire, D. Chen, J. Gilbert, T. Yeh, S. Nagle, E. Florendo, L. Pacaud, N. Patel, S.J. Harrison, and H. Einsele

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Fludarabine

- Required for lymphodepletion
- No dosing recommendation for patients with eGFR < 30
- No patients were enrolled in the clinical trial with poor kidney function or dialysis dependent

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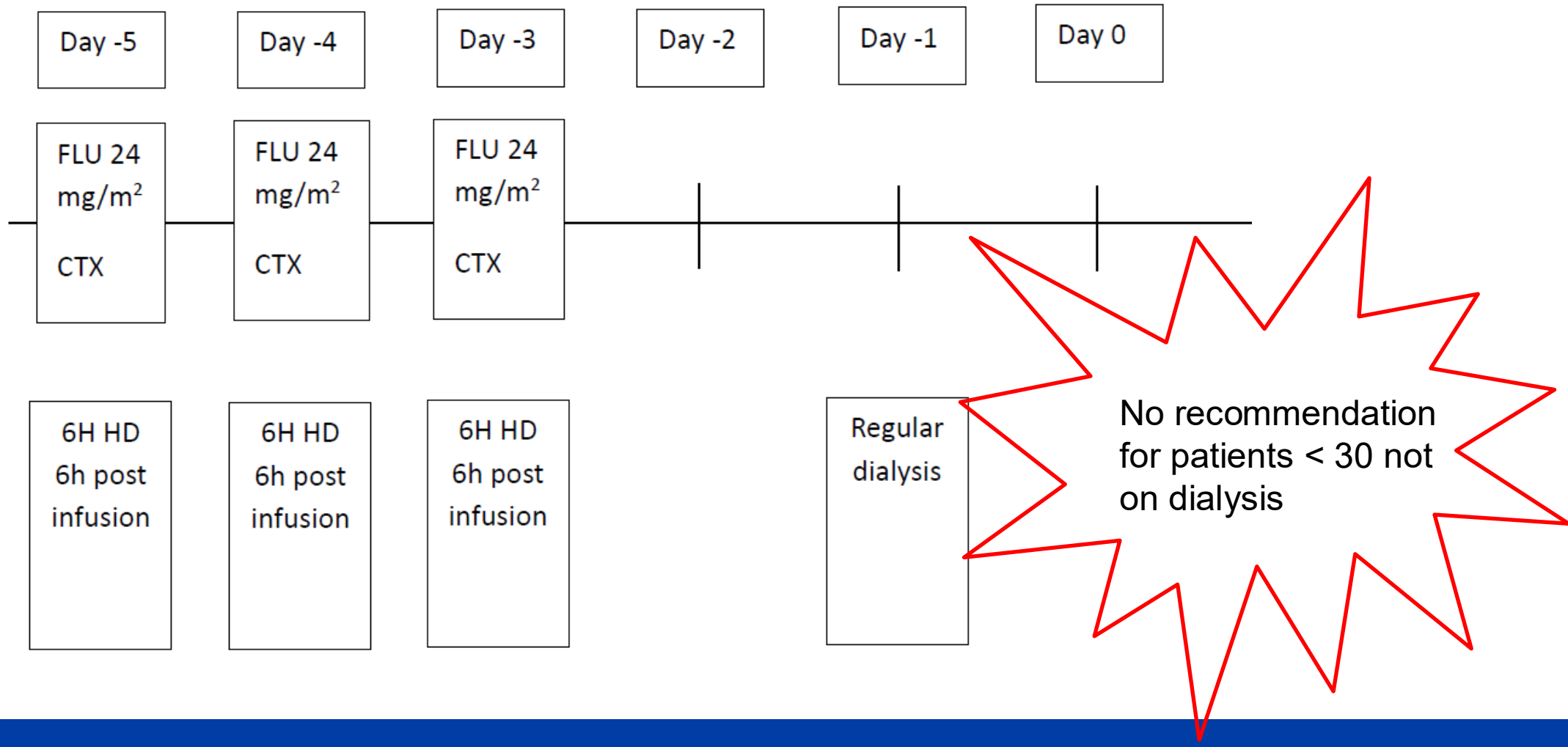
Lymphodepletion Protocol for Dialysis Dependent Patients Undergoing CAR T



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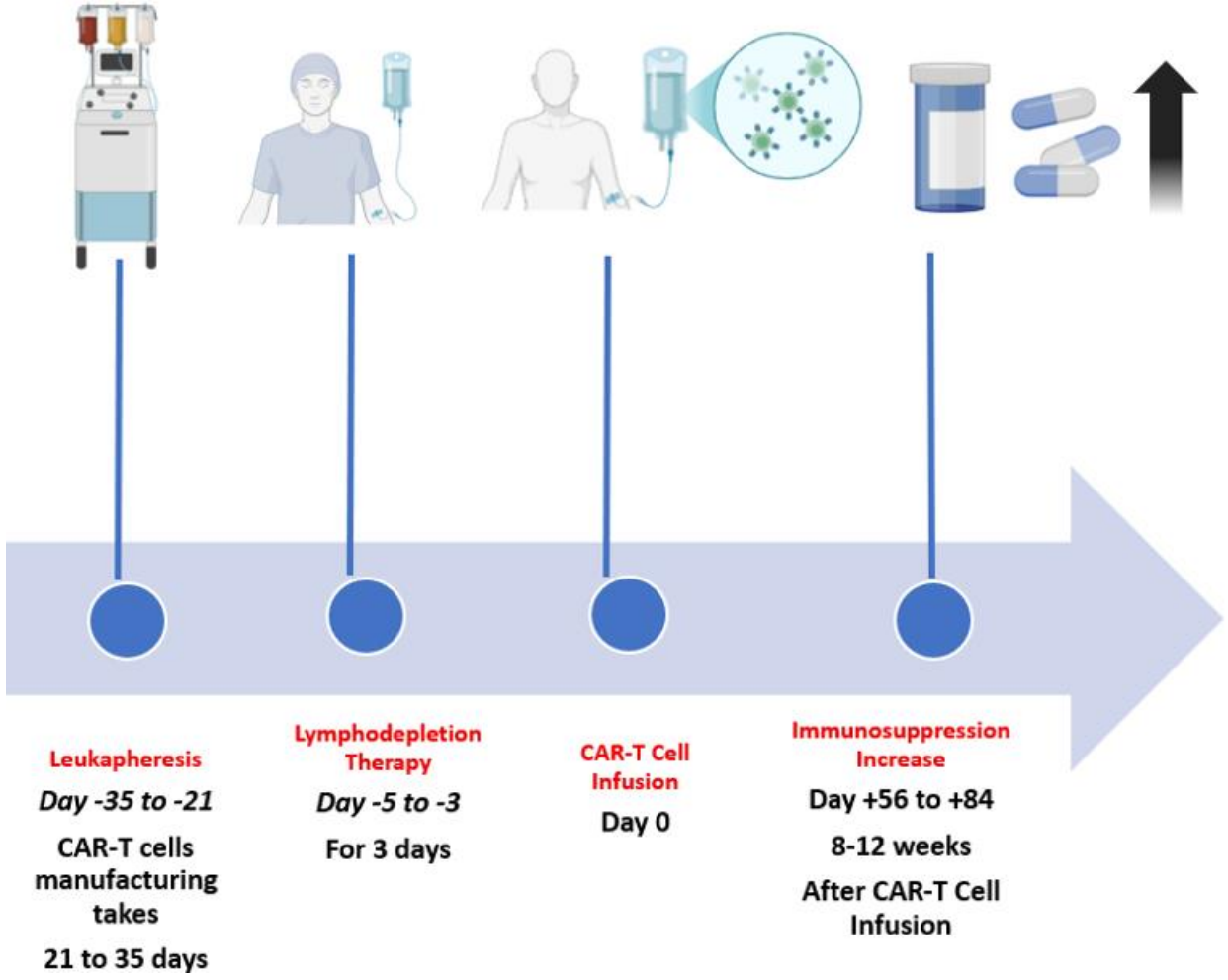
Timeline for CAR T therapy



CAR –T cell therapy currently is not a good option for LCCN

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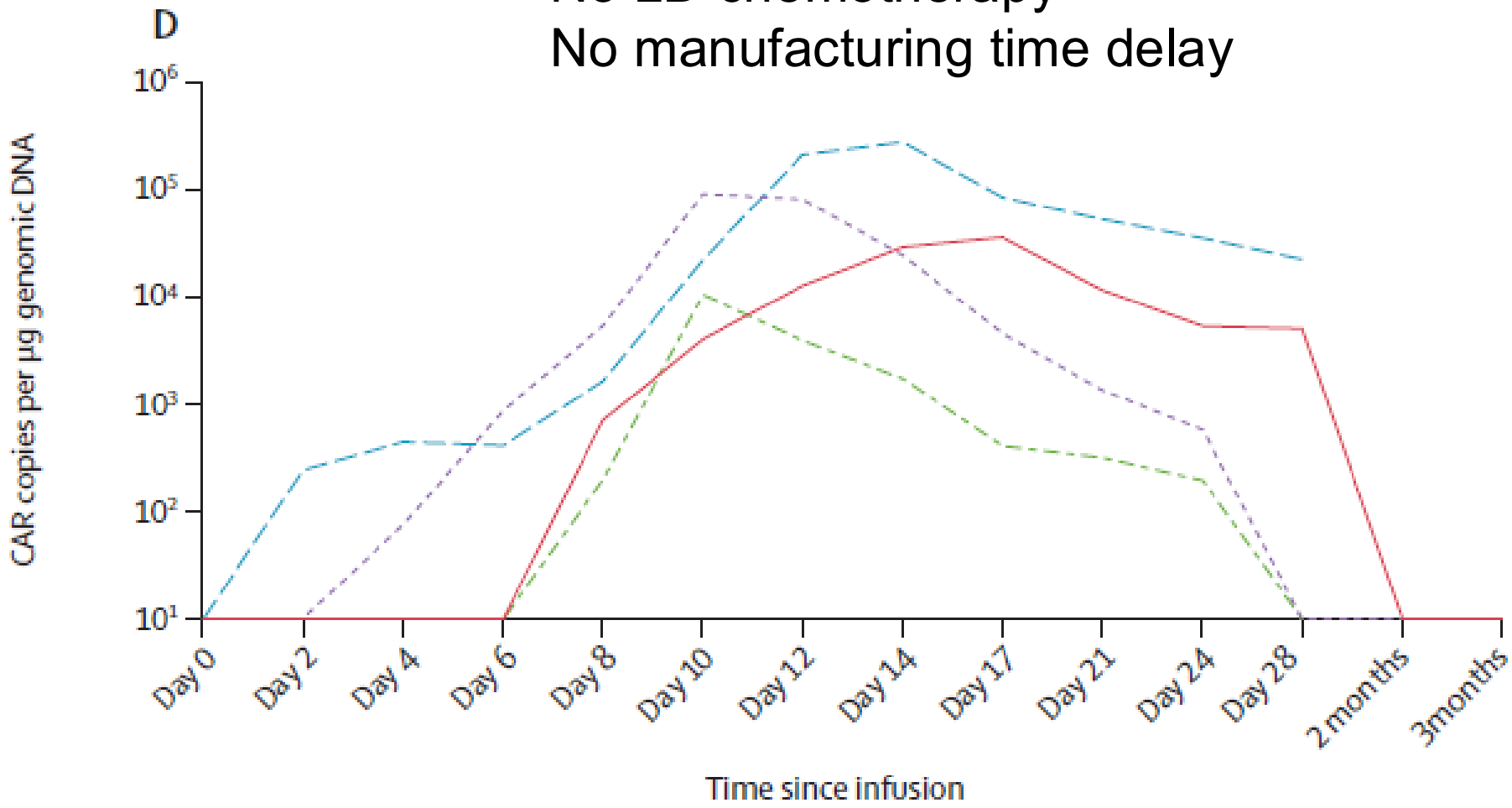
In Vivo CAR-T

No LD chemotherapy
No manufacturing time delay



Xu et al. The Lancet 2025

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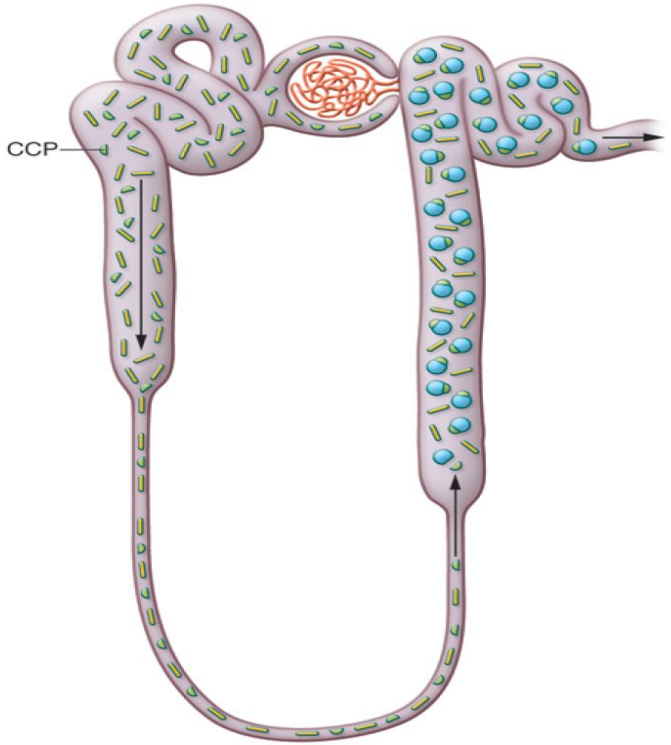
Potential Future Therapy



- Cyclized Peptide
  - Targets the binding site on THP
  - Coadministration of CCP with FLC prevents the development of acute kidney injury
  - Reversal of kidney injury with CCP is observed up to 4 hours after injection of FLC

Ying et al. J Clin Invest 2012
Leung. J Clin Invest 2012

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Take home messages

- Light chain cast nephropathy is a consequence of high tumor burden from multiple myeloma
- Rapid and sustained reduction of the involved free light chain is essential for recovery of kidney function from light chain cast nephropathy
- Despite extremely effective therapies for multiple myeloma, treatment for light chain cast nephropathy remains an unmet need.

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