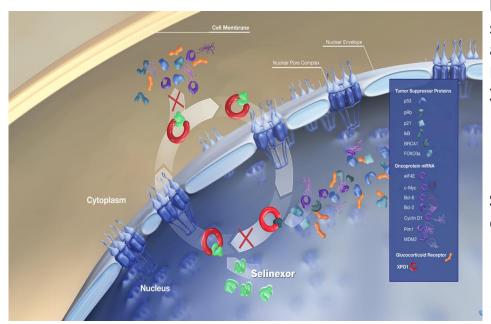


Selinexor in Combination with Carfilzomib and Dexamethasone, All Once Weekly (SKd), for Patients with Relapsed/Refractory Multiple Myeloma

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Selinexor: First-in-Class, Oral Selective Inhibitor of Nuclear Export has Synergistic Activity in combination with Proteasome Inhibitors



Exportin 1 (XPO1) is a critical nuclear exporter for tumor suppressor proteins (TSPs, e.g., p53, IkB, and FOXO3a) ¹⁻³ and eIF4E-bound oncoprotein mRNAs (e.g., c-Myc, Bcl-xL, MDM2, cyclin D1) ^{1,2,4}

XPO1 is overexpressed in MM:

- High XPO1 levels enable cancer cells to escape TSP-mediated cell cycle arrest and apoptosis^{1,2,5}
- XPO1 levels correlate with poor prognosis and drug resistance ^{1,2}

Selinexor is an oral selective **XPO1 inhibitor**; preclinical data demonstrates that selinexor:

- Reactivates multiple TSPs relevant to MM, inhibits NF-kB and c-Myc activity, and reactivates GR signaling in presence of dexamethasone^{1,2,6,7}
- Exhibits synergistic activity with proteasome inhibitors by forcing nuclear localization of high levels of TSPs⁸

¹Tai et al., Leukemia, 2014, ²Fung HY, Chook YM. Semin Cancer Biol. 2014, ³Parikh et al., J Hematol Oncol. 2014, ⁴Gravina GL, et al., BMC Cancer. 2015, ⁵Schmidt et al., Leukemia, 2013, ⁶Parikh et al., J Hematol Oncol. 2014, ⁷Argueta et al., Oncotarget, 2018, ⁸Kashyap et al., Oncotarget. 2016

Selinexor and Carfilzomib Activity in Multiple Myeloma

- Selinexor + dexamethasone in patients with MM refractory to at least one proteasome inhibitor, one immunomodulatory agents, and daratumumab (triple-class refractory) resulting in 26.4% ORR and 4.4 months of PFS¹
- BOSTON validated the combination of Selinexor + Proteasome Inhibitor in phase 3 study:
 - Selinexor, bortezomib and dexamethasone (SVd) all QW regimen showed superior PFS (13.93 months vs. 9.46 months) and ORR (76.4% vs. 62.3%) with reduced peripheral neuropathy compared with standard BIW bortezomib + dexamethasone³
- Selinexor showed a synergistic antitumor effect with carfilzomib ex-vivo in carfilzomib-refractory MM patient samples⁴ and in preclinical xenograft MM model⁵
- Hypothesis: Once weekly (QW) carfilzomib and QW selinexor + Dexamethasone is tolerable and derives promising responses in carfilzomib-naïve RRMM patients

Selinexor + Carfilzomib + Dexamethasone (SKd): Objectives / Inclusion Criteria and Patient Demographics

Objectives:

- Primary endpoint: maximum tolerated dose (MTD), recommended phase 2 dose (RP2D), and overall response rate (ORR)
- Secondary endpoint: Safety per CTCAE and progression free survival (PFS)

Key Inclusion/Exclusion criteria:

- WBC ≥ 1,500/mm³ Hb ≥ 8.0 g/dL, platelet count ≥ 75,000/mm³
- Progressing or refractory to a previous regimen
- Prior proteasome inhibitors are allowed, however, patients with MM refractory to carfilzomib are excluded

Patient Characteristics (Enrolled as of October 1, 2020)	Total (N = 24)
Median Age, Years (range)	70.5 (50 – 76)
Males : Females	15 (62.5%) : 9 (37.5%)
ECOG Performance Status, 0:1:2	4 (16.7%) : 19 (79.2%): 1 (4.2%)
Median Years from Diagnosis to SKd Treatment, Years (range)	5.25 (2.7 – 11.3)
Median Prior Regimens (range)	3 (1–8)
-Bortezomib exposed	24 (100.0%)
-Carfilzomib exposed	1 (4.2%)
-Lenalidomide exposed	23 (95.8%)
-Pomalidomide exposed	16 (66.7%)
-Daratumumab exposed	15 (62.5%)
-Stem Cell Transplant	19 (79.2%)

DLTs and Treatment-Related Adverse Events ≥15% Patients

Selinexor Dose	Carfilzomib Dose	No. Pts Enrolled	No. Pts DLT- evaluable	No. Pts with DLT	Dose Limiting Toxicity
100 mg QW	56 mg/m ² IV	3	*2	2	Dose Reduction for G3 PLT; Dose Reduction for G3 Emesis
80 mg QW	$70 \text{ mg/m}^2 \text{ IV}$	3	3	2	Grade 4 PLT and Grade 3 Pneumonia; Grade 4 PLT
80 mg QW	56 mg/m ² IV	6	6		No DLT

Dose-Limiting Toxicity (DLT): Standard 3 + 3 design for dose escalations. Carfilzomib C1D1 dose 20 mg/m² per label. *One patient not DLT evaluable because platelet count <50x10³/L C1D1.

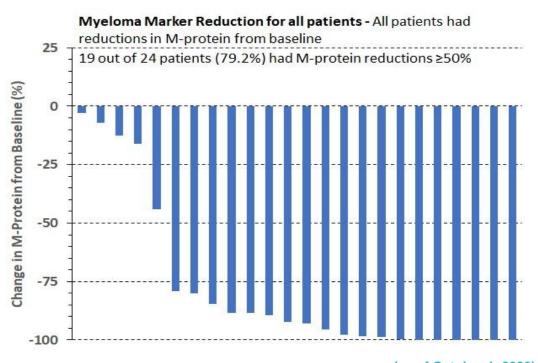
AEs ≥15% Patients (N=24)					
Hematologic	Any Grade	Grade 3/4			
Thrombocytopenia	19 (79.2)	14 (58.3)			
Anaemia	14 (58.3)	5 (20.8)			
Leukopenia	8 (33.3)	3 (12.5)			
Neutropenia	7 (29.2)	2 (8.3)			
Gastrointestinal					
Nausea	17 (70.8)	1 (4.2)			
Decreased appetite	12 (50.0)	1 (4.2)			
Dysgeusia	9 (37.5)	0			
Diarrhoea	5 (20.8)	0			
Vomiting	5 (20.8)	1 (4.2)			
Constipation	4 (16.7)	0			

AEs ≥15% Patients (N=24) – Cont.				
Constitutional	Any Grade	Grade 3/4		
Fatigue	14 (58.3)	2 (8.3)		
Weight decreased	11 (45.8)	0		
Insomnia	4 (16.7)	0		
Other				
Hyperglycaemia	6 (25.0)	2 (8.3)		
Hyponatraemia	4 (16.7)	1 (4.2)		
Blurred vision	4 (16.7)	0		

SKd Results in Deep Responses in heavily pretreated patients:

(100% Velcade Exposed; 95% prior Len; 67% prior Pom; 63% prior Dara)

	Best Response (%) n=24
CR (%)	5 (20.8%)
VGPR (%)	8 (33.3%)
PR (%)	5 (20.8%)
MR (%)	1 (4.2%)
SD (%)	5 (20.8%)
ORR	18 (75%)
CBR	19 (79.2%)

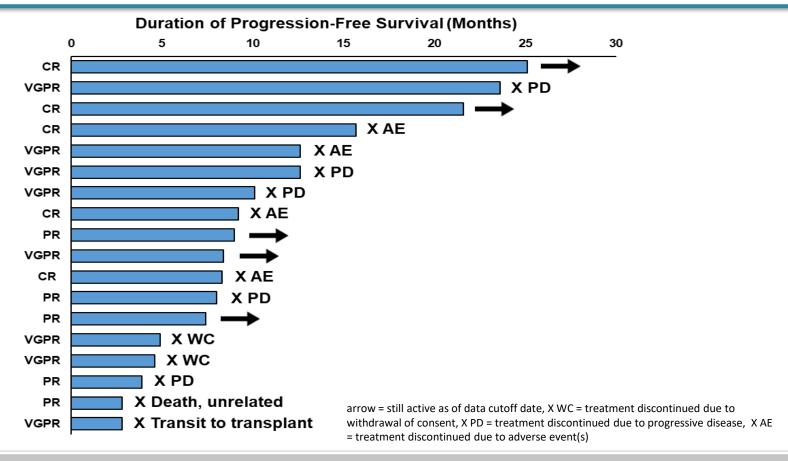


(as of October 1, 2020)

Responses were determined according to the International Myeloma Working Group (IMWG) criteria. ORR=Overall Response Rate (CR+VGPR+PR), CBR=Clinical Benefit Rate (ORR+MR), CR=Complete Response, VGPR=Very Good Partial Response, PR=Partial Response, MR=Minimal Response, SD=Stable Disease, PD=Progressive Disease. Responses as of October 1, 2020 based on interim unaudited data.



SKd Time on Therapy: Response are durable > 12 months



Summary and Conclusions

- The RP2D of SKd with continuous weekly Selinexor is once-weekly selinexor 80 mg + carfilzomib 56 mg/m² + dexamethasone 40 mg
- The combination is active and durable with an ORR of 75% with deep responses (≥ VGPR) in 54%, in patients who had a median of 3 lines of prior therapy
- The most common TRAEs are thrombocytopenia, nausea, anemia, fatigue and anorexia which are expected and can be managed with supportive care and/or dose modifications
- Further exploration with selinexor dosing on days 1, 8 and 15 q 28 days is ongoing

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