

## Introduction

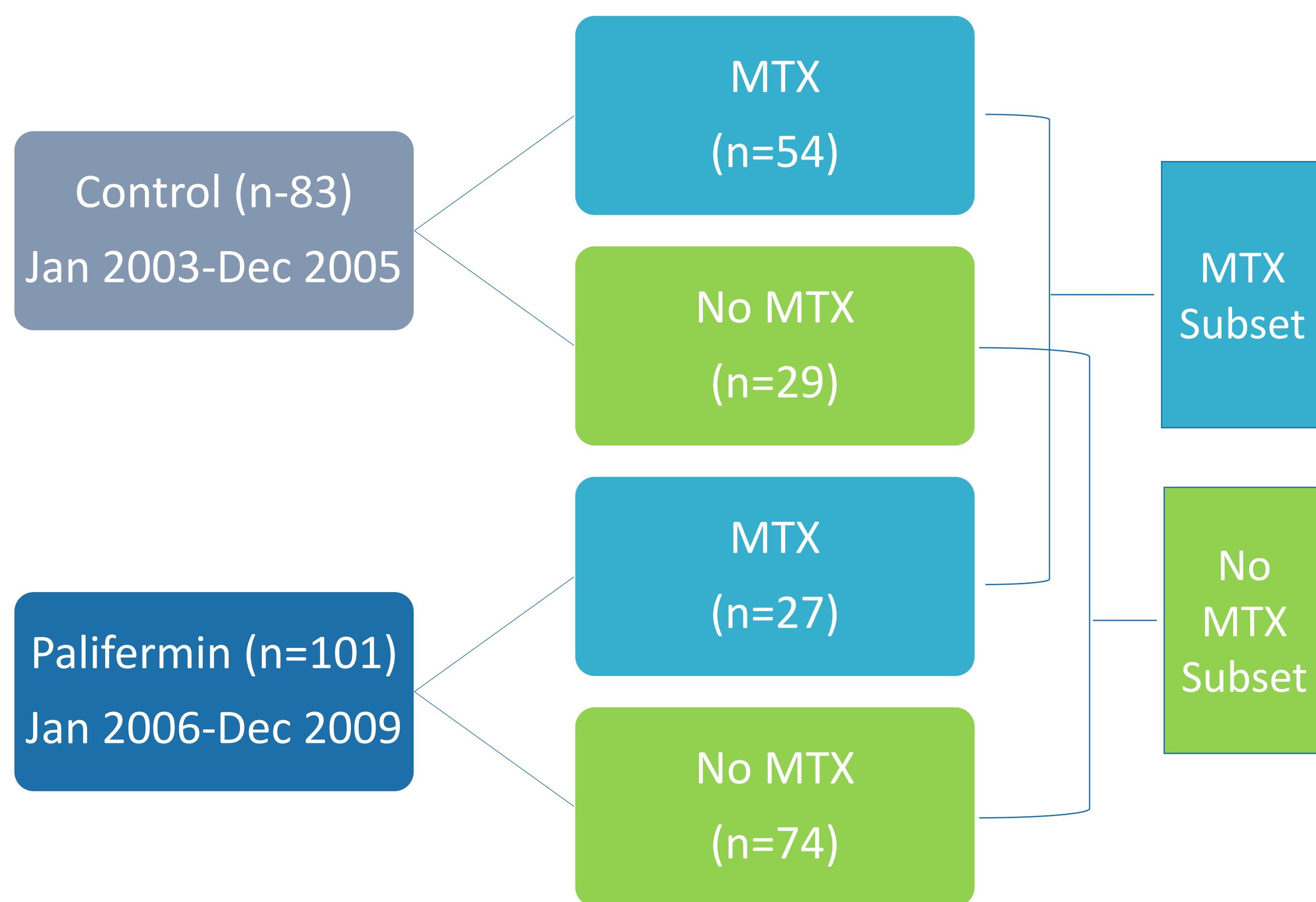
Palifermin is a keratinocyte growth factor that is approved in the U.S. to decrease the incidence and duration of oral mucositis (OM) after myelotoxic therapy in autologous hematopoietic stem cell (HSCT) patients. It is not approved in the setting of allogeneic HSCT (alloHSCT).

The purpose of our study was:

- To determine the difference in duration and severity of OM and hospital length of stay (LOS) in adult alloHSCT patients conditioned with TBI and etoposide with or without palifermin prophylaxis
- To compare the outcomes above between subsets of patients who did and did not receive methotrexate (MTX) for graft-versus-host disease (GVHD) prophylaxis

## Materials and Methods

- IRB-approved single-center retrospective cohort study
- Historical control group was comprised of patients treated between 2003-2005 without palifermin



## Results

### Patient Demographics

Characteristic	Overall Population			MTX Subset			No MTX Subset		
	Palifermin (N=101) N (%)	Control (N=83) N (%)	P	Palifermin (N=27) N (%)	Control (N=54) N (%)	P	Palifermin (N=74) N (%)	Control (N=29) N (%)	P
Male	45 (45%)	49 (59%)	0.06	16 (59%)	34 (63%)	0.81	29 (39%)	15 (52%)	0.28
Median age in years (range)	42 (18-59)	39 (18-62)	0.15	35 (18-55)	41 (18-57)	0.13	44 (18-59)	34 (19-62)	0.03
Matched related donor	75 (74%)	60 (72%)	0.87	18 (67%)	32 (60%)	0.63	57 (77%)	28 (97%)	0.02
Peripheral stem cell	87 (86%)	81 (98%)	0.007	22 (82%)	52 (96%)	0.04	65 (88%)	29 (100%)	0.06
<b>GVHD Px</b>									
No MTX	74 (73%)	29 (35%)	<0.0001	0	0		74 (100%)	29 (100%)	
MTX	27 (27%)	54 (65%)		27 (100%)	54 (100%)		0	0	
Tacro	17 (17%)	17 (20%)		17 (63%)	17 (31%)		0	0	
Tacro-Siro	79 (78%)	32 (39%)		7 (26%)	7 (13%)		72 (97%)	25 (86%)	
Tacro-Siro-ATG	4 (4%)	0		2 (7%)	0		2 (3%)	0	
CSA	1 (1%)	34 (41%)		1 (4%)	30 (56%)		0	4 (14%)	

## References

- Kepivance [package insert]. Stockholm, Sweden: Sobi; 2016.
- Spielberger R, Stiff P, Bensinger W. et al. Palifermin for oral mucositis after intensive therapy for hematologic cancers. *N Engl J Med* 2004;351:2590-8.
- Nguyen DT, Shayani S, Palmer J, et al. Palifermin for prevention of oral mucositis in allogeneic hematopoietic stem cell transplantation: single-institution retrospective evaluation. *Support Care Cancer* 2015;23:3141-7.

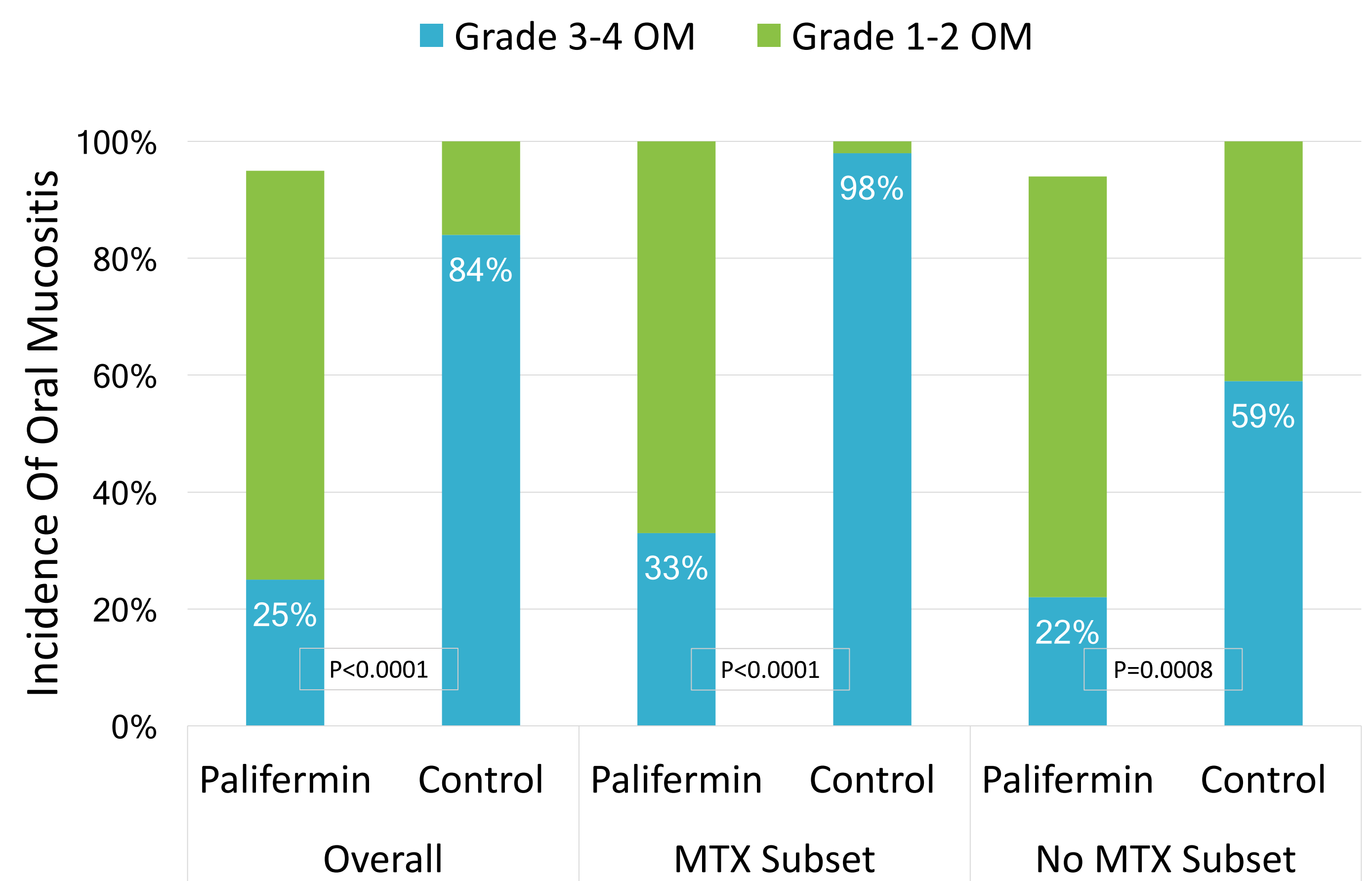
## Conclusions

Palifermin prophylaxis in alloHSCT patients conditioned with etoposide + TBI was associated with:

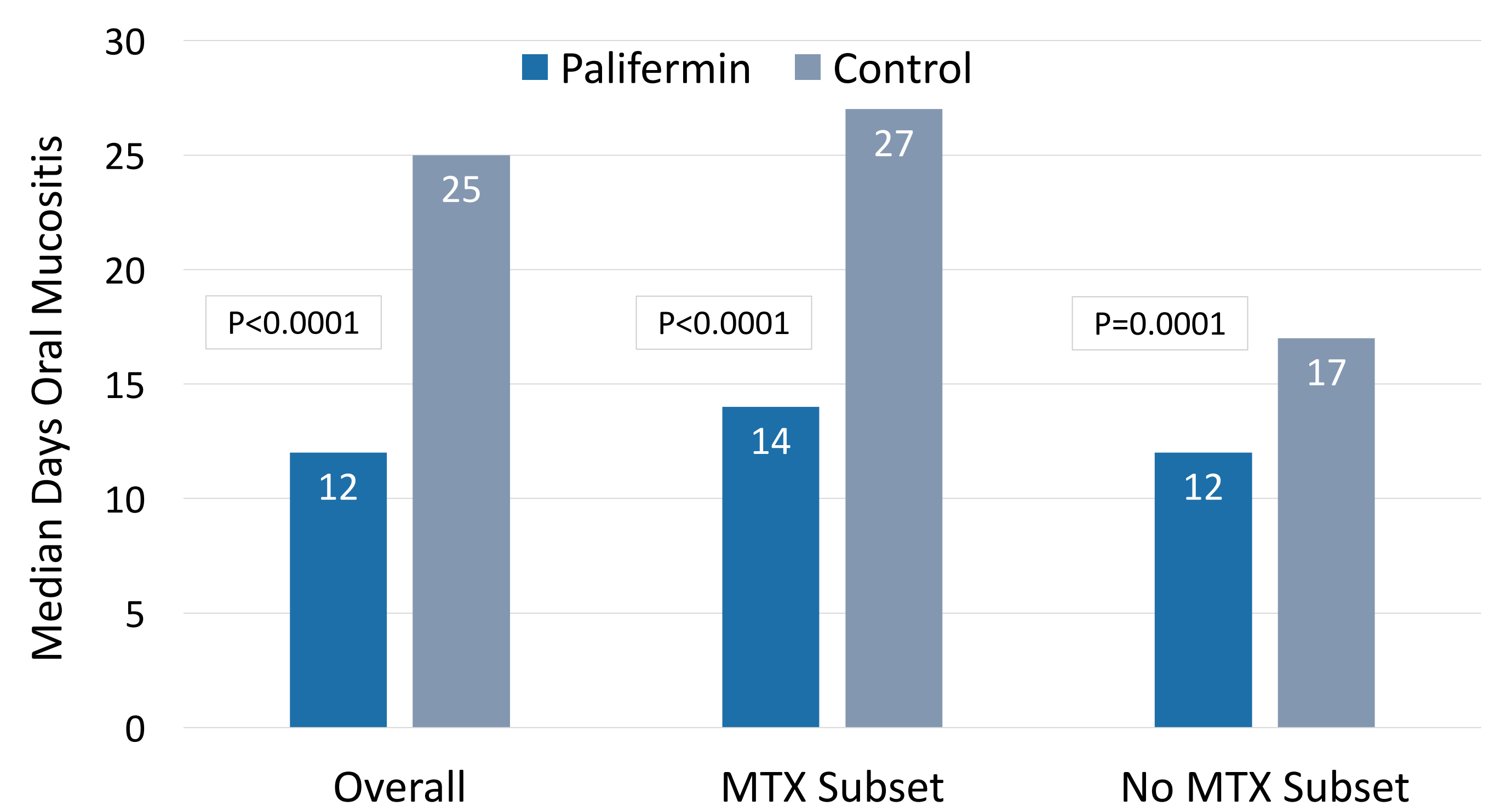
- Decreased duration and severity of oral mucositis in patients who received and did not receive MTX for GVHD prophylaxis
- Decreased LOS in patients who received MTX for GVHD prophylaxis

## Results

### Incidence of Oral Mucositis



### Median Duration of Oral Mucositis



### Median Hospital Length of Stay

