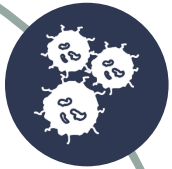




**Nivolumab improves response rate  
in Japanese patients treated for  
renal cell carcinoma**

# Renal cell carcinoma (RCC) is highly lethal



Accounts for 2.4% of adult malignancies<sup>1</sup>



30% of patients present with metastatic disease<sup>1</sup>



40% of patients will die from metastases<sup>1</sup>



13<sup>th</sup> most common cause of cancer death worldwide<sup>2</sup>

<sup>1</sup>Mazza C, et al. *Ther Adv Med Oncol.* 2017;9(3):171-181.

<sup>2</sup>Capitanio U, et al. *Eur Urol.* 2019;75(1):74-84.



# Current treatments for RCC are associated with limited overall survival

Vascular endothelial growth factor (VEGF)



**Angiogenesis**

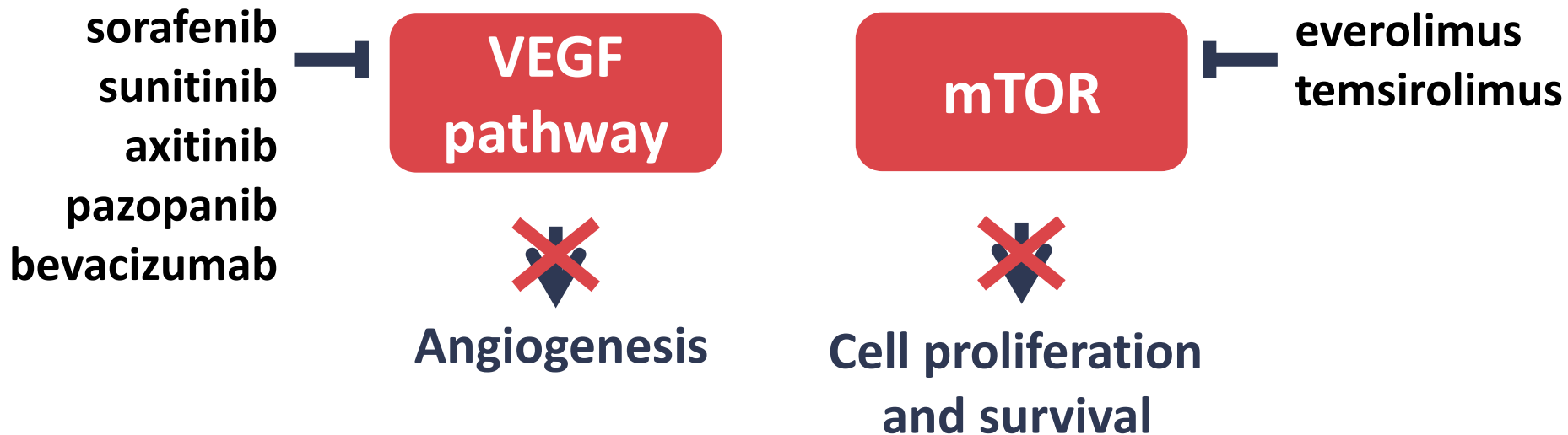


**Cell proliferation and survival**

Mammalian target of rapamycin (mTOR)

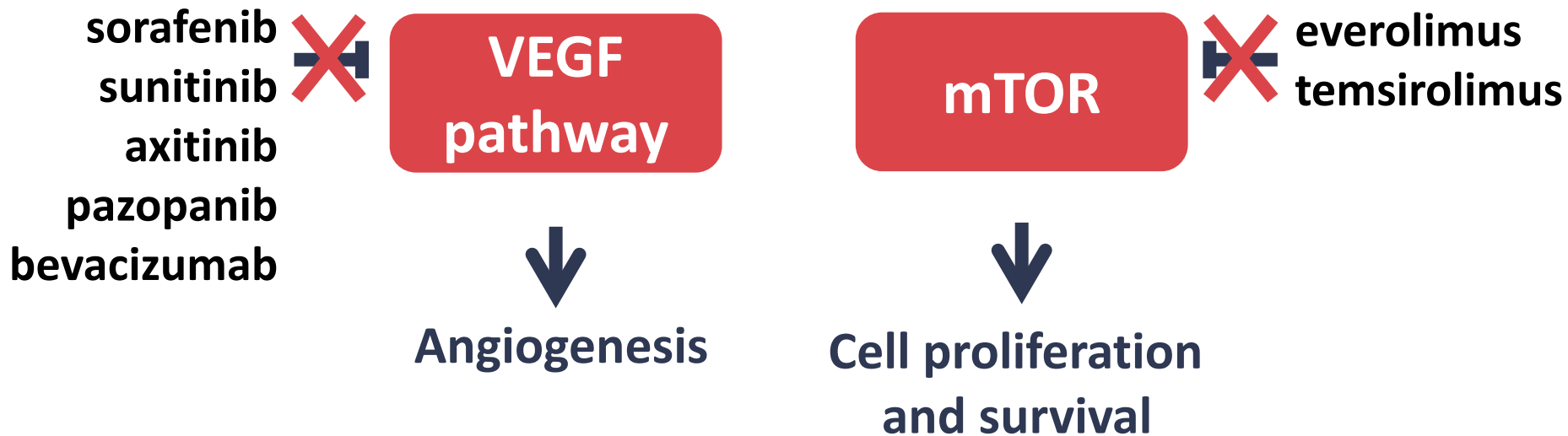


# Current treatments for RCC are associated with limited overall survival

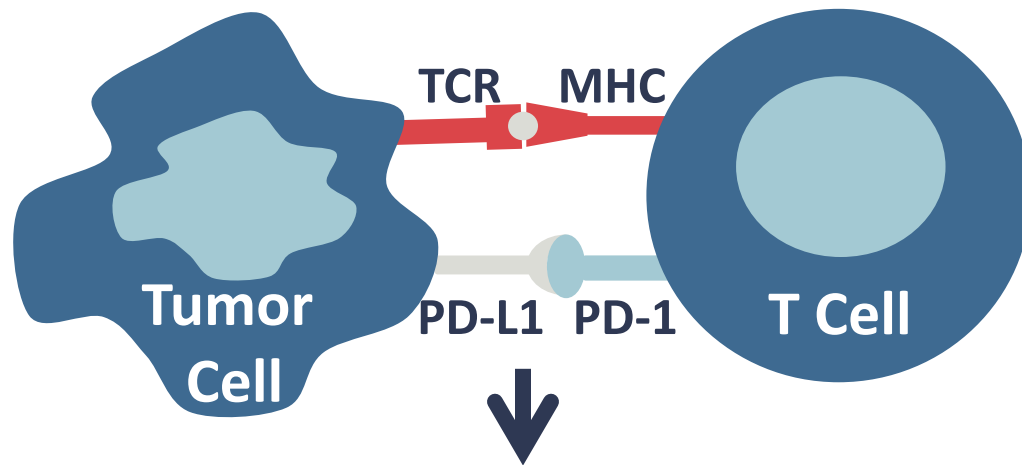




# Current treatments for RCC are associated with limited overall survival



# Promising immunotherapies restore the anticancer immune response

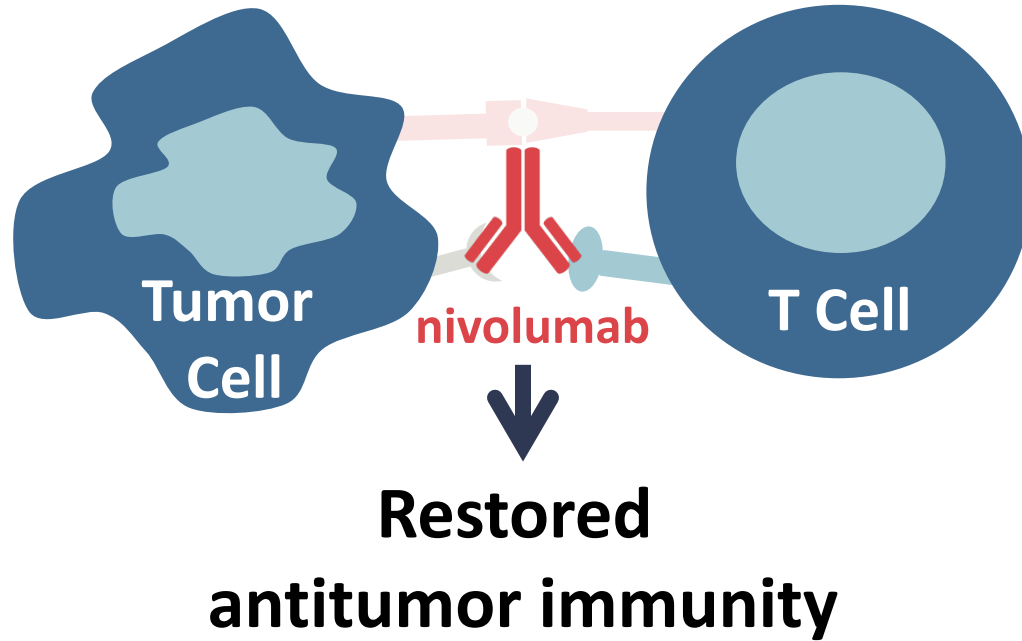


**Immune evasion  
by tumor cells**

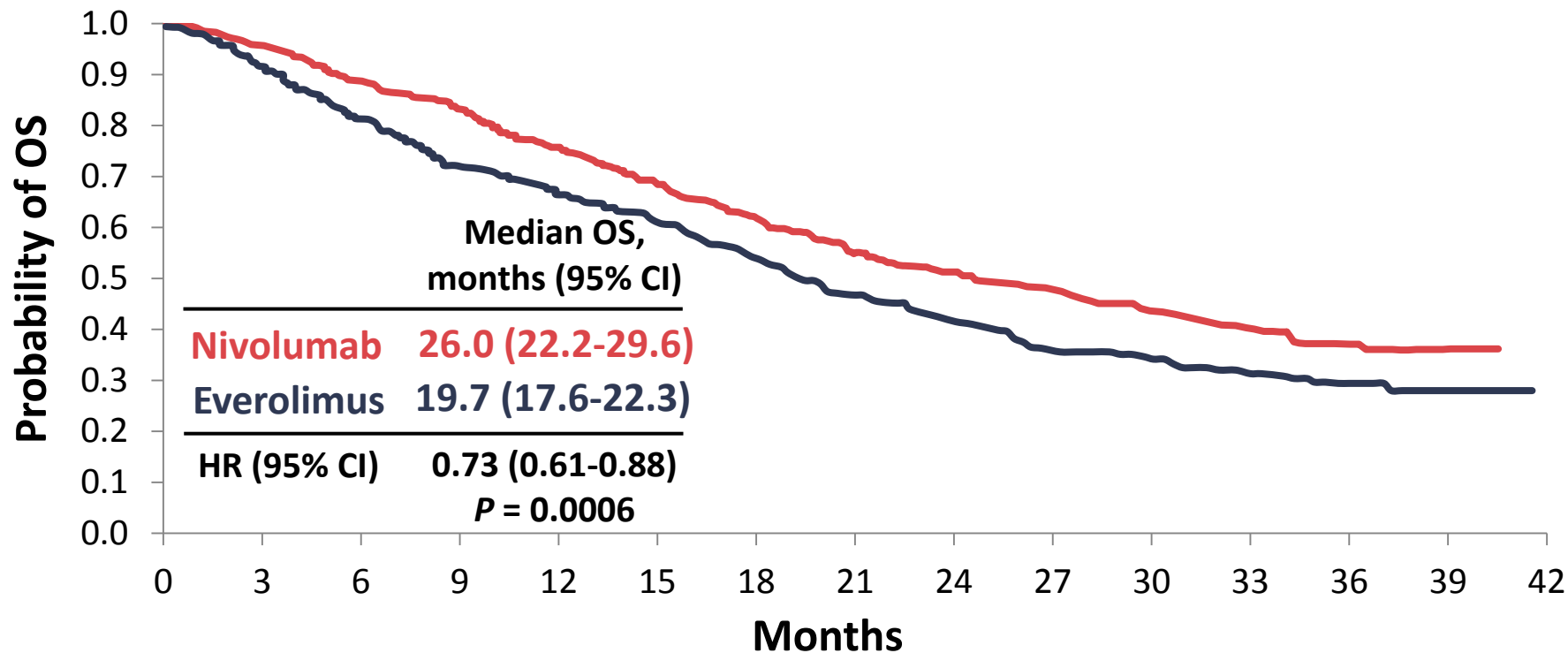
Mazza C, et al. *Ther Adv Med Oncol*. 2017;9(3):171-181.  
Thompson RH, et al. *Cancer Res*. 2006;66(7):3381-3385.

TCR = T-cell receptor  
MHC = major histocompatibility complex  
PD-L1 = programmed death-ligand 1  
PD-1 = programmed death protein 1

# Promising immunotherapies restore the anticancer immune response



# Nivolumab improves overall survival (OS) versus everolimus in patients with advanced RCC



Motzer RJ, et al. *N Engl J Med*. 2015;373(19):1803-1813.

Tomita Y, et al. *Jpn J Clin Oncol*. 2017;47(7):639-646.





# Does nivolumab improve OS in a Japanese subgroup?

**Efficacy/safety  
may differ in Asian countries**



Liu X, et al. *Acta Oncologica*. 2017;56(4):582-589.

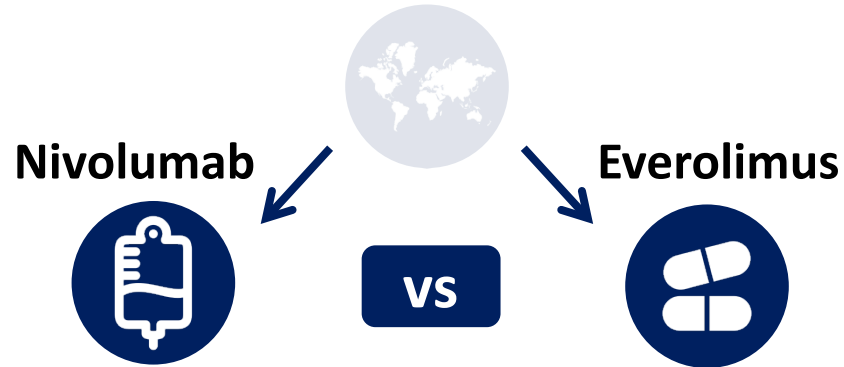
Ye D, et al. *Clin Genitourin Cancer*. 2014;12(4):225-233.

Oh WK, et al. *International Journal of Oncology*. 2014;44(1):5-16.



# Does nivolumab improve OS in a Japanese subgroup?

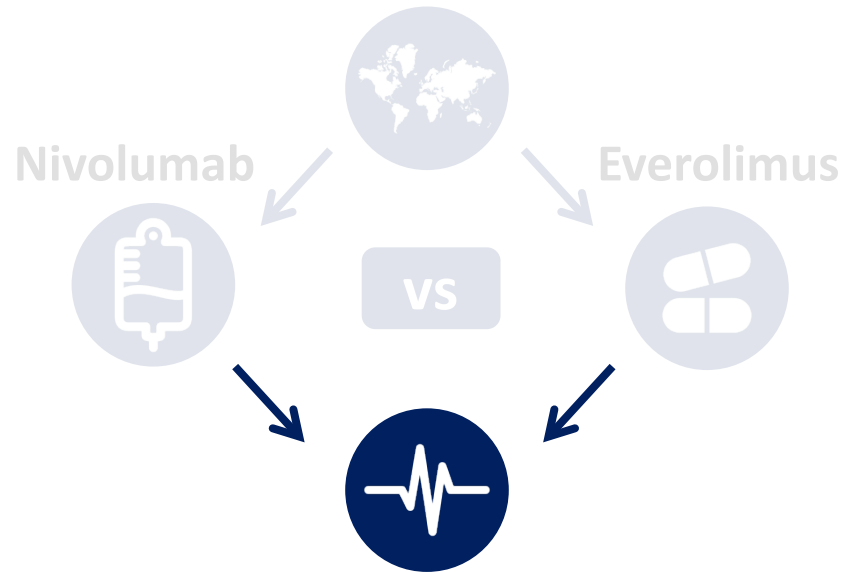
Efficacy/safety  
may differ in Asian countries





# Does nivolumab improve OS in a Japanese subgroup?

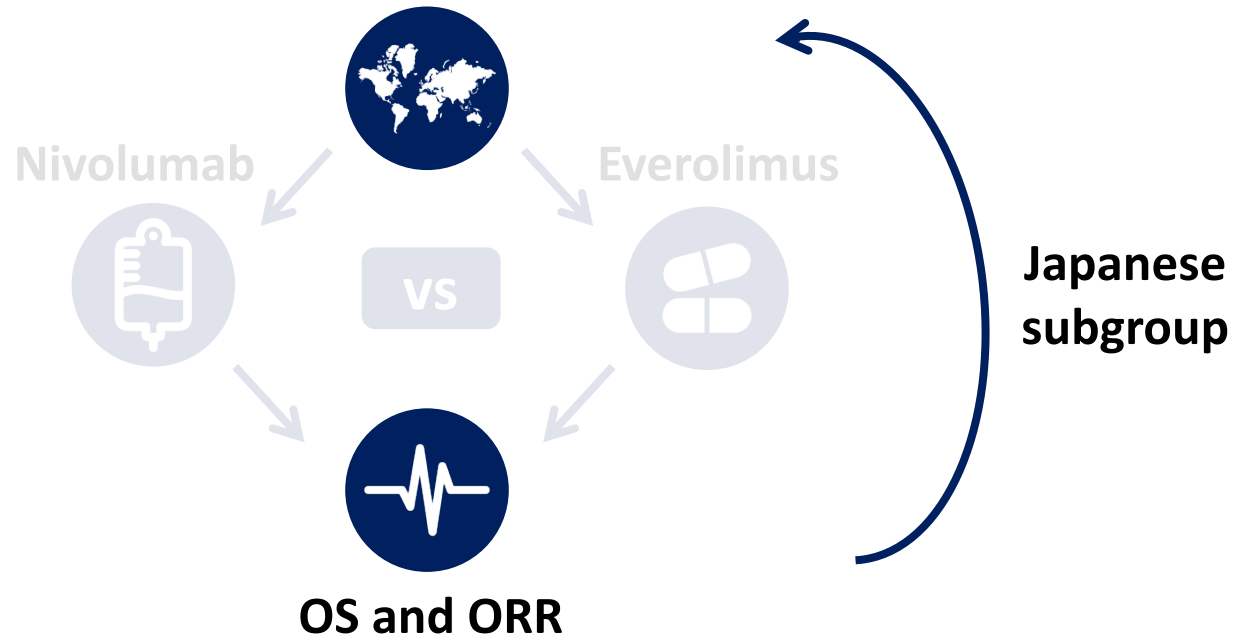
Efficacy/safety  
may differ in Asian countries



**OS and Overall Response Rate (ORR)**

# Does nivolumab improve OS in a Japanese subgroup?

Efficacy/safety  
may differ in Asian countries





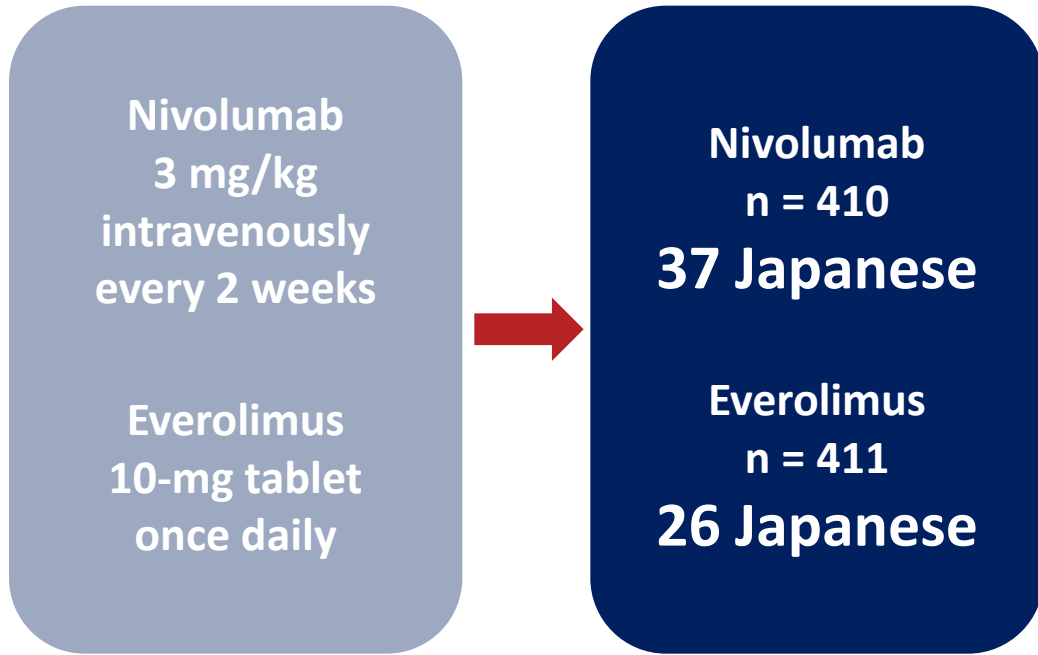
# Japanese and global subgroups of the CheckMate 025 study were assessed

**Nivolumab**  
**3 mg/kg**  
**intravenously**  
**every 2 weeks**

**Everolimus**  
**10-mg tablet**  
**once daily**

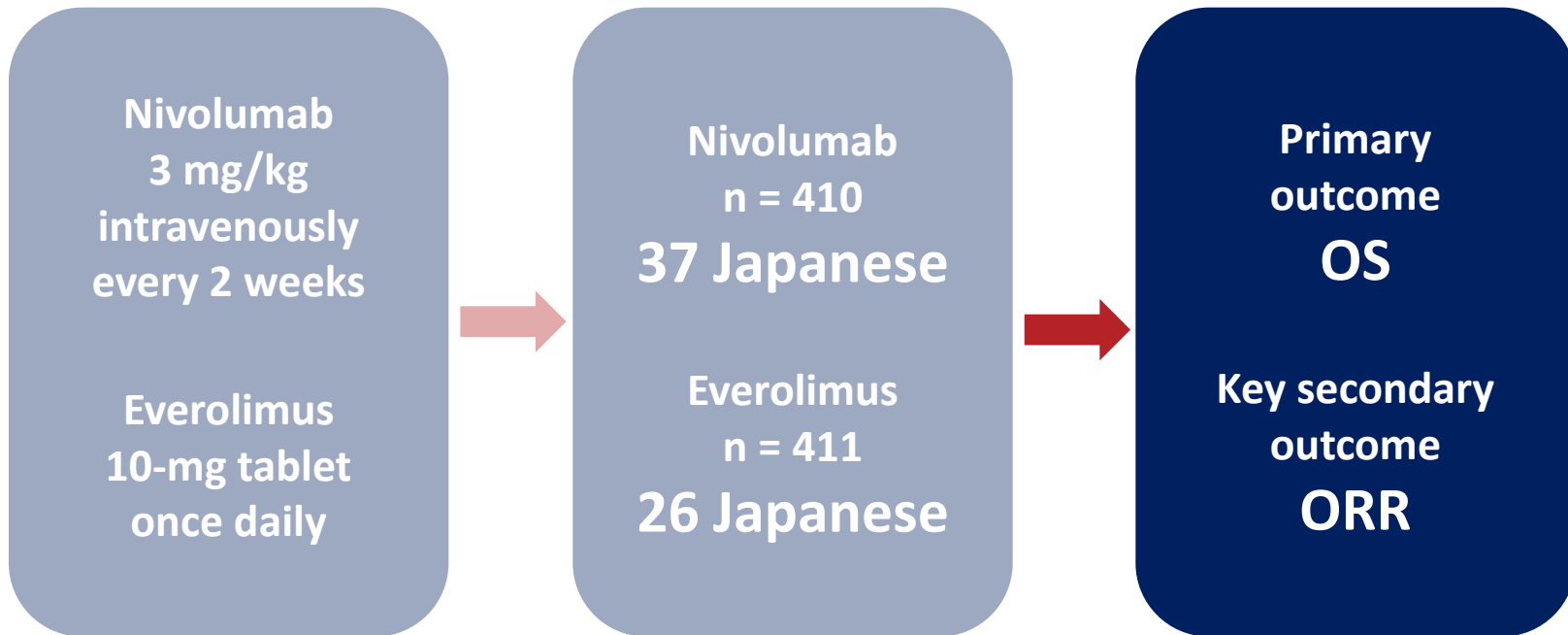


# Japanese and global subgroups of the CheckMate 025 study were assessed



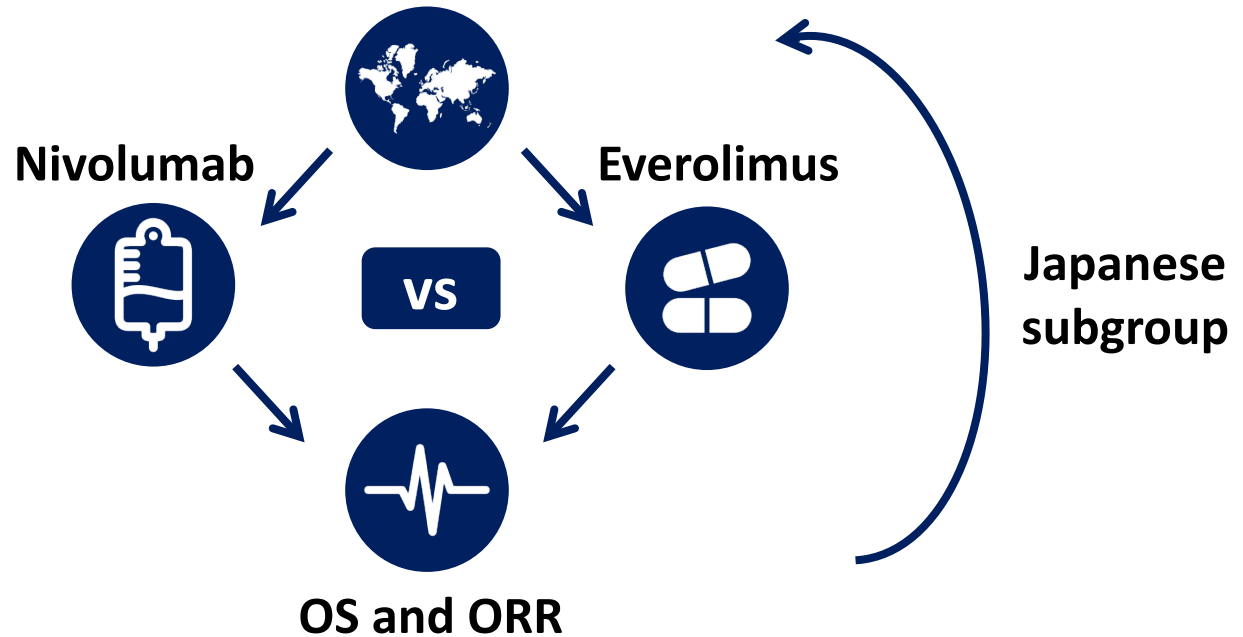


# Japanese and global subgroups of the CheckMate 025 study were assessed



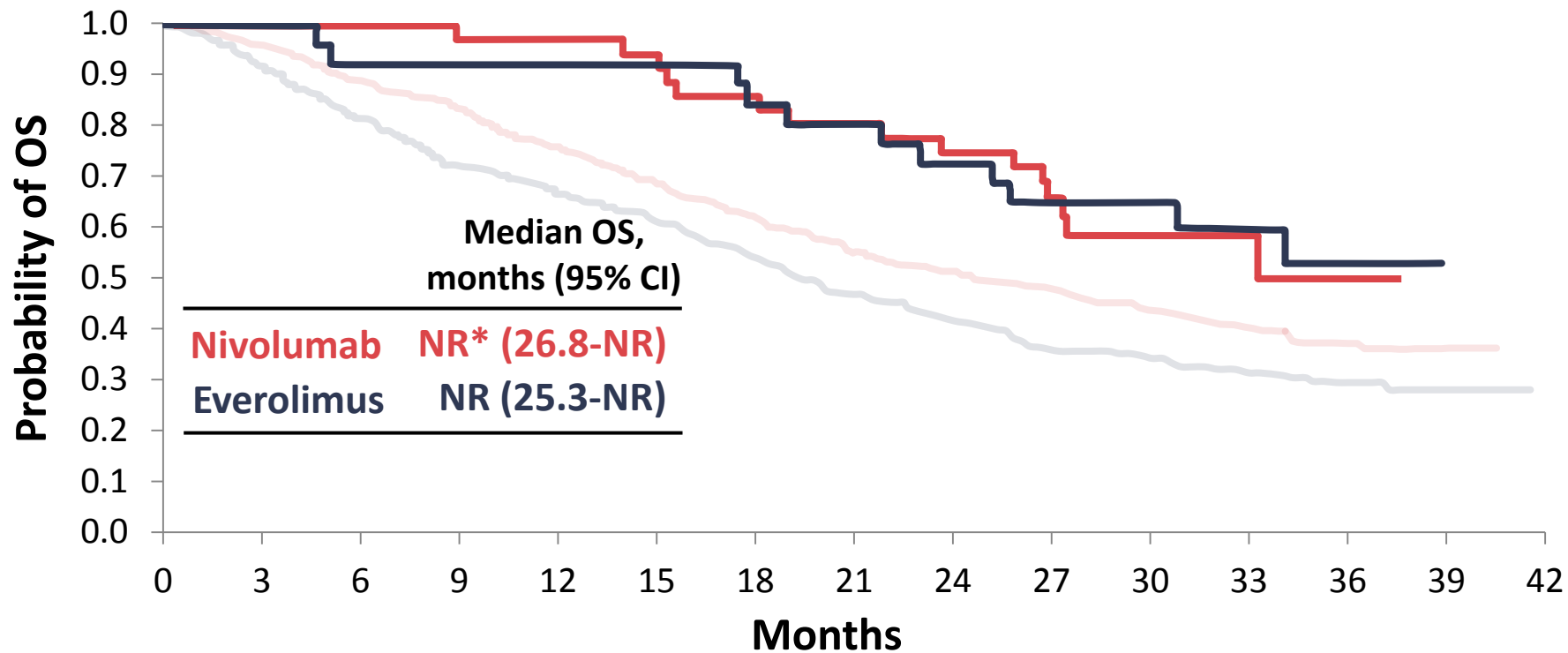
# Does nivolumab improve OS in a Japanese subgroup?

Efficacy/safety  
may differ in Asian countries





# Median OS was not reached for either treatment in the Japanese subgroup





# Nivolumab had superior efficacy to everolimus for both groups

**Global population**

**Japanese subgroup**



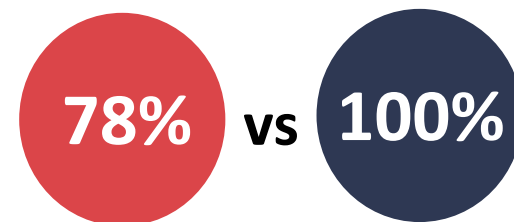


# Nivolumab had superior safety to everolimus for both groups

**Global population**

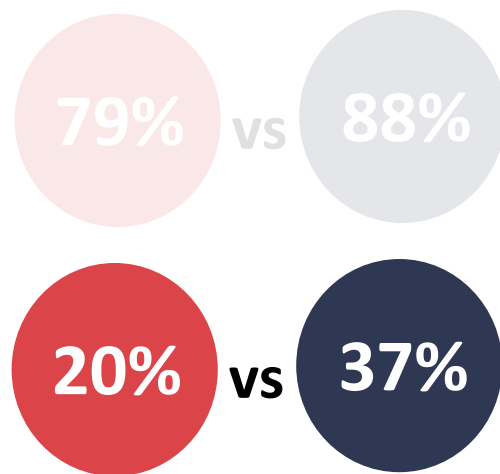


**Japanese subgroup**

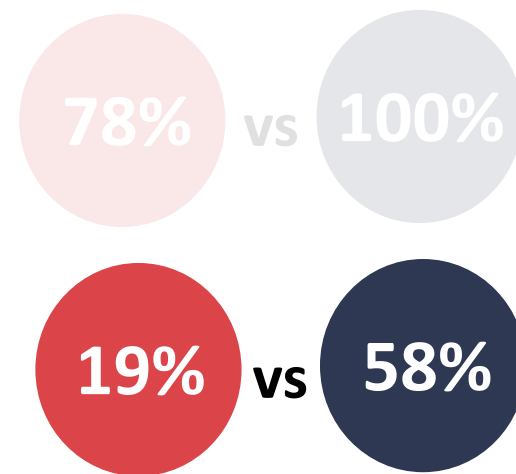


# Nivolumab had superior safety to everolimus for both groups

## Global population

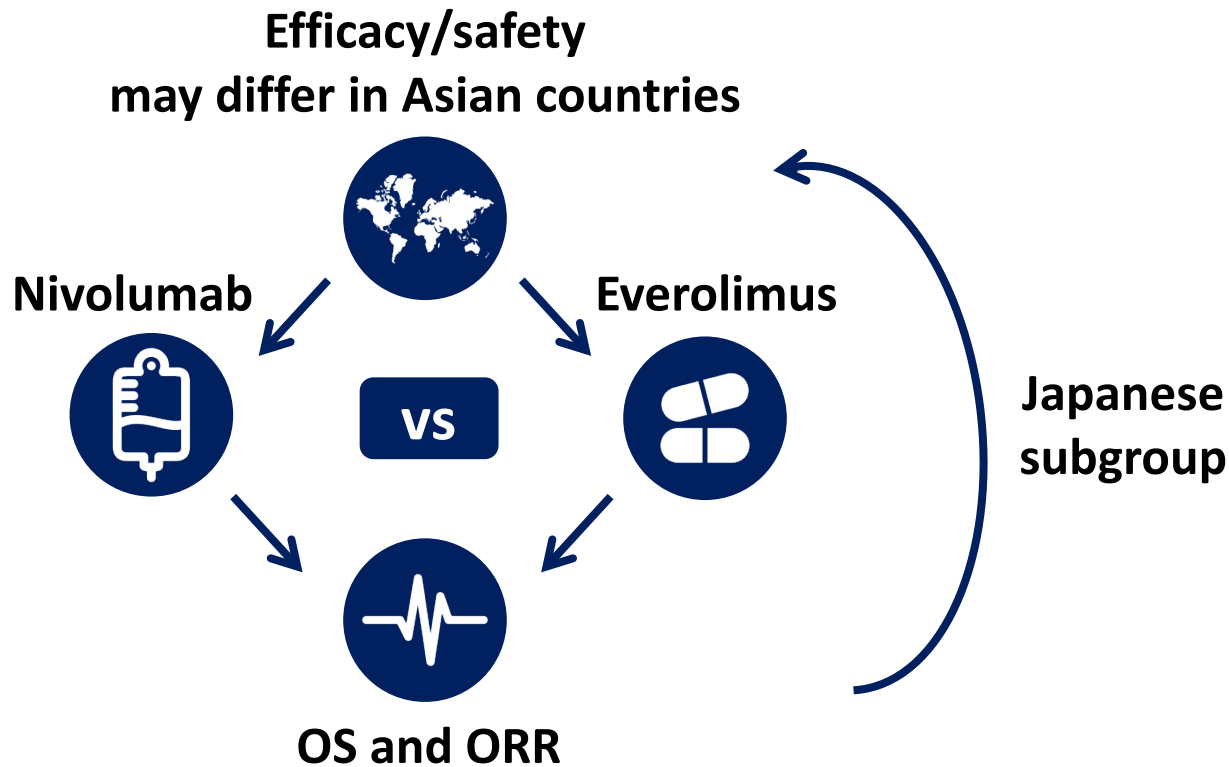


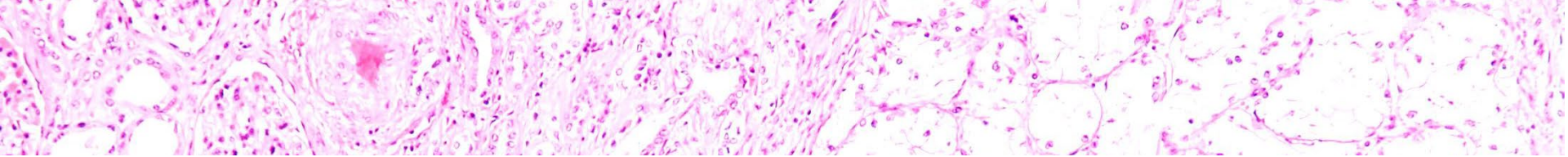
## Japanese subgroup





# Japanese patients had a higher response rate to nivolumab versus everolimus





**These results support the recent approval of nivolumab for previously treated RCC patients in Japan**

