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Takeda’s dengue data are failing the test of time

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Only three weeks after Takeda announced encouraging 12-month results for its dengue vaccine TAK-003, the triumphalism appears to have waned, alongside the efficacy of the tetravalent injection. Longer 18-month results of the Tides study presented at the American Society of Tropical Medicine and Hygiene conference showed that the overall effectiveness of the vaccine had fallen from 80% to 73%. TAK-003’s ability to reduce hospitalisations also dropped, from 95% to 90%. But even more worrying is the project’s disappointing performance against the DENV-3 serotype, where it provided less than 50% protection. If this downward trend continues questions will be raised about its ability to provide protection against this serotype and the vaccine's safety, as infection with one serotype can raise the risk of severe illness when re-infected with another. For now TAK-003 is likely to remain the front runner in the developmental dengue field, following concerns about using Sanofi’s Dengvaxia in children who have not previously been infected with the virus. But the Tides study has another three years to run, and if TAK-003’s efficacy continues to fall across the serotypes its commercial potential could also wane. *EvalutatePharma* calculates 2024 consensus sales estimates of $453m.

TAK-003 12-month and 18-month data

	Vaccine efficacy				
Time	**Overall**	**DENV-1**	**DENV-2**	**DENV-3**	**DENV-4**
TIDES 12 mths	80%	74%	98%	63%	63%*
TIDES 18 mths	73%	70%	95%	49%	51%*

**Results inconclusive. Source: Tides study, published in NEJM; Takeda.*