

Budget Impact Analysis Of Various Diagnostic Tests For Metabolic Dysfunction-Associated Steatohepatitis (MASH) In Japan



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This handout presents the budget impact results of three representative diagnostic tests including base case in the poster that were not included in the poster due to space limitations. These methods are distinct from those featured in the poster.

FIB4 + T4C7S + liver biopsy vs FIB4 + T4C7S

Table S1: Assumptions for Test performance and diagnostic accuracy of FIB4 + T4C7S + liver biopsy vs FIB4 + T4C7S (cited from base case in main poster)

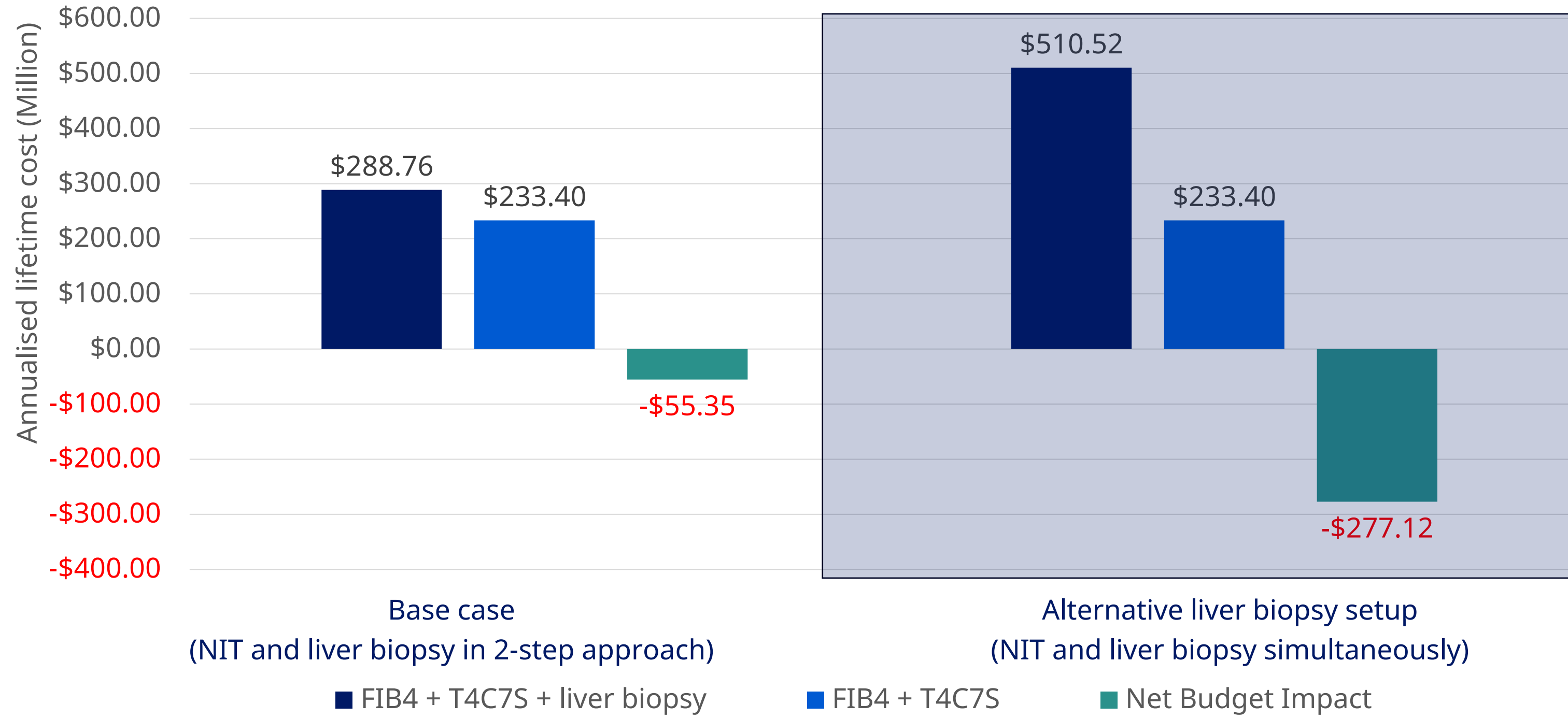
Test Characteristics	Sensitivity	Specificity
Intervention		
FIB4 + T4C7S + liver biopsy	100%	100%
Comparator		
FIB4 + T4C7S	84.2%	84.6%

Test Characteristics	True Positives	False Positives	True Negatives	False Negatives
Base case				
Intervention				
1 st step: FIB4 + T4C7S (NITs)	32.52%	6.10%	51.93%	9.45%
2 nd step: Biopsy (after above NITs)	32.52%	0.00%	58.03%	9.45%
Comparator				
FIB4 + T4C7S (NITs)	32.52%	6.10%	51.93%	9.45%
Scenario				
Intervention				
FIB4 + T4C7S + biopsy	38.62%	0.00%	61.38%	0.00%
Comparator				
FIB4 + T4C7S (NITs)	32.52%	6.10%	51.93%	9.45%

FIB-4, Fibrosis-4; NIT, non-invasive tests; T4C7S, Type IV Collagen 7S.

Ref. [1]

Figure S1: Total budget impacts per year of base case and scenario analysis (Approach 1), FIB4 + T4C7S + liver biopsy vs FIB4 + T4C7S (cited from base case in main poster)



FIB-4, Fibrosis-4; NIT, non-invasive tests; T4C7S, Type IV Collagen 7S. The currency conversion rate applied in the model was set at 1 USD = 148 JPY, reflecting the prevailing exchange rate at the time of analysis.

FIB4 + ELF + liver biopsy vs FIB4 + ELF

Table S2: Assumptions for Test performance and diagnostic accuracy of FIB4 + ELF + liver biopsy vs FIB4 + ELF

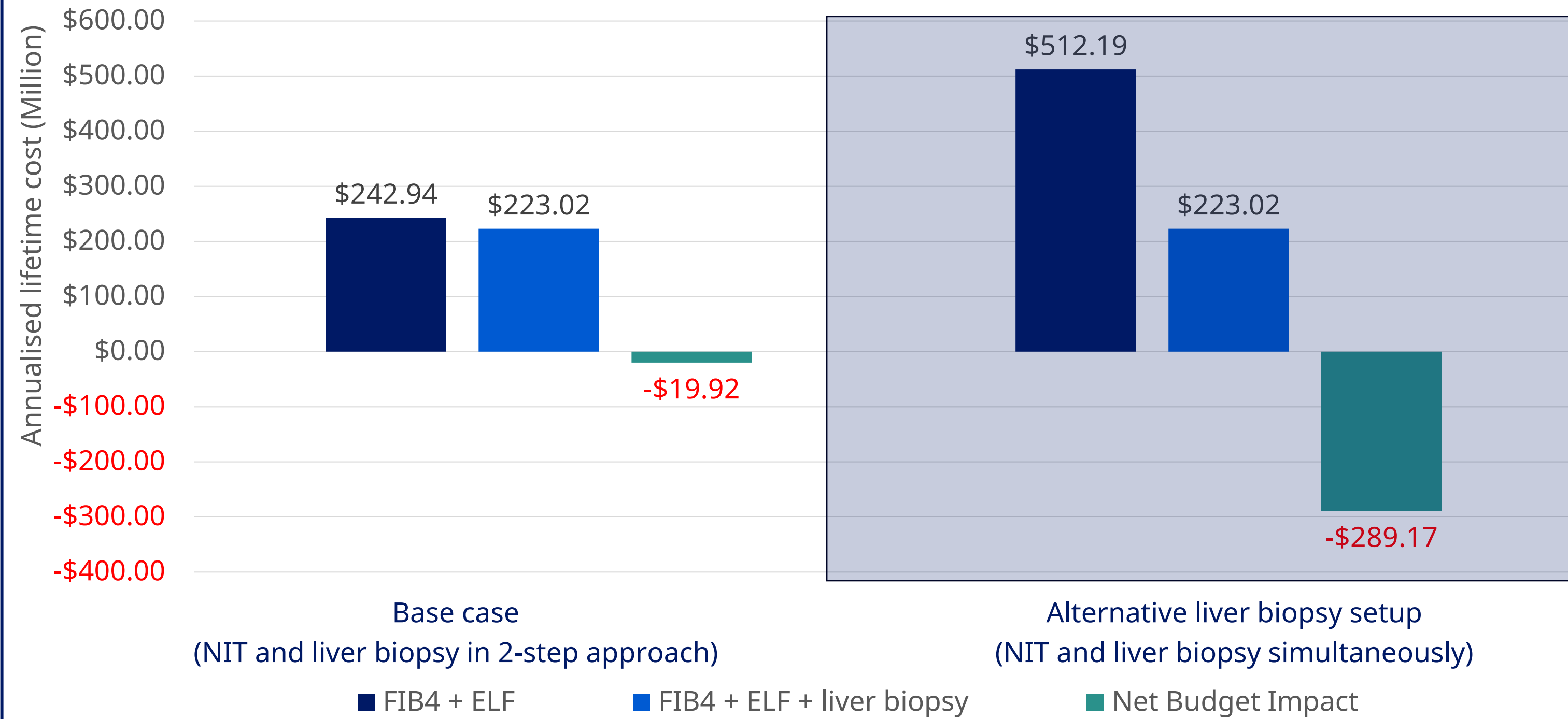
Test Characteristics	Sensitivity	Specificity
Intervention		
FIB4 + ELF + liver biopsy	100%	100%
Comparator		
FIB4 + ELF	69.0%	92.0%

Test Characteristics	True Positives	False Positives	True Negatives	False Negatives
Base case				
Intervention				
1 st step: FIB4 + ELF (NITs)	26.65%	11.97%	56.47%	4.91%
2 nd step: Biopsy (after above NITs)	26.65%	0.00%	68.44%	4.91%
Comparator				
FIB4 + ELF (NITs)	26.65%	11.97%	56.47%	4.91%
Scenario				
Intervention				
FIB4 + ELF + biopsy	38.62%	0.00%	61.38%	0.00%
Comparator				
FIB4 + ELF (NITs)	26.65%	11.97%	56.47%	4.91%

ELF, enhanced liver fibrosis; FIB-4, Fibrosis-4; NIT, non-invasive tests.

Ref. [2]

Figure S2: Total budget impacts per year of base case and scenario analysis (Approach 1), FIB4 + ELF + liver biopsy vs FIB4 + ELF



FIB-4, Fibrosis-4; NIT, non-invasive tests; T4C7S, Type IV Collagen 7S. The currency conversion rate applied in the model was set at 1 USD = 148 JPY, reflecting the prevailing exchange rate at the time of analysis.

FIB4 + ELF + VCTE + liver biopsy vs FIB4 + ELF + VCTE

Table S3: Assumptions for Test performance and diagnostic accuracy of FIB4 + ELF + VCTE + liver biopsy vs FIB4 + ELF + VCTE

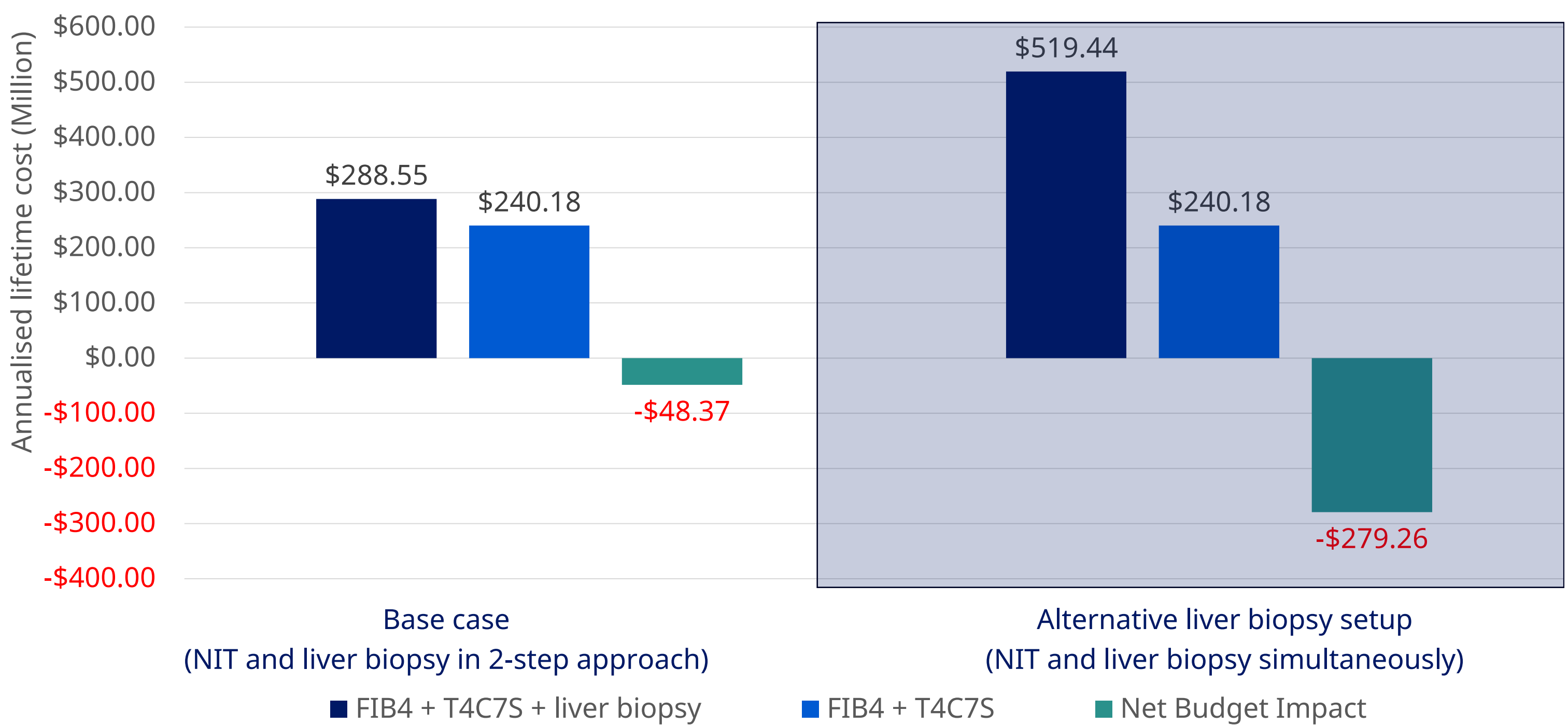
Test Characteristics	Sensitivity	Specificity
Intervention		
FIB4 + ELF + VCTE + liver biopsy	100%	100%
Comparator		
FIB4 + ELF + VCTE	83.4%	78.4%

Test Characteristics	True Positives	False Positives	True Negatives	False Negatives
Base case				
Intervention				
1 st step: FIB4 + ELF + VCTE (NITs)	31.47%	7.14%	48.49%	12.89%
2 nd step: Biopsy (after above NITs)	31.47%	7.14%	55.64%	12.89%
Comparator				
FIB4 + ELF + VCTE (NITs)	31.47%	7.14%	48.49%	12.89%
Scenario				
Intervention				
FIB4 + ELF + VCTE + biopsy	38.62%	0.00%	61.38%	0.00%
Comparator				
FIB4 + ELF + VCTE (NITs)	31.47%	7.14%	48.49%	12.89%

ELF, enhanced liver fibrosis; FIB-4, Fibrosis-4; NIT, non-invasive tests VCTE, Vibration-controlled transient elastography.

Ref. [3]

Figure S3: Total budget impacts per year of base case and scenario analysis (Approach 1), FIB4 + ELF + VCTE + liver biopsy vs FIB4 + ELF + VCTE



FIB-4, Fibrosis-4; NIT, non-invasive tests; T4C7S, Type IV Collagen 7S. The currency conversion rate applied in the model was set at 1 USD = 148 JPY, reflecting the prevailing exchange rate at the time of analysis.

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References: (1) Shima et al. Journal of gastroenterology 2020; 55; 100-112; (2) Anstee et al. Hepatology 2019; 70(5); 1521-1530; (3) Kobayashi et al. Sci Rep 2022; 12(1); 18174.