Budget Impact Analysis of FreeStyle Libre Systems for People with Type 2 Diabetes on Basal Insulin – A European Perspective

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BACKGROUND

- Clinical evidence demonstrates FreeStyle Libre systems (FSL) are associated with reduced healthcare resource use for insulin-treated people with diabetes
- Reimbursement of FSL in most European countries remains restricted to people with type 1 diabetes (T1D) and type 2 diabetes (T2D) on intensively managed insulin regimens
- We estimated the budget impact of expanding FSL access to those with T2D on basal insulin (T2B)

METHODS

- We developed a budget impact model (BIM) to estimate the budget impact of expanding FSL access to T2B compared to the standard of care—self management of blood glucose (SMBG)
- The model adopted a European payer perspective and modeled the budget impact of 1,000 persons with T2B over 1-year. The model considered the following costs: FSL acquisition cost, SMBG acquisition cost, and cost of all cause hospitalization (ACH) event
- The model assumed a rate of 0.58 ACH events per 1,000 in the SMBG arm; in the FSL arm, the model assumed a 24% reduction in ACH events relative to SMBG. These data were based on a Swedish real-world evidence study within a T2B population using FSL relative to SMBG[1]
- ACH event cost for T2D were averaged across Finland and Sweden.[2,3] The cost of the FSL sensor was fixed at €65.90. Other cost data were sourced across three countries: Sweden, Belgium, Finland. All costs were inflated to 2024 euros
- One-way sensitivity analysis (OWSA) was conducted to identify model drivers by varying cost by +/- 20%

RESULTS

- Expanding reimbursement of FSL to the T2B population resulted in a net cost savings of €184 per patient per year. At a cohort level, this translated to a net annual cost savings of €183,980 for the payer
- OWSA identified the cost of all cause hospitalization events and FSL acquisition cost as key model drivers

CONCLUSIONS

- This budget impact analysis showed the acquisition cost of FSL is offset by healthcare resource reduction in the T2B population
- Reimbursement expansion of FSL in this population can result in net cost savings to European health systems

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TABLE 1: Model input parameters

Parameter	Value	Notes
FSL sensor cost	€65.90	European list price
Test strip cost	€0.25	List price
Lancet cost	€0.04	List price
SMBG acquisition cost	€118/yr	Assumed 400 BG tests a year
FSL acquisition cost	€1,756/yr	Assumed one BG test per week and 14-day sensor life
ACH cost	€12,928	Averaged across Finland and Sweden
ACH rate	0.5875/yr	Nathanson et. al[1]
ACH reduction associated with FSL use	24%	Nathanson et. al[1]

FSL = FreeStyle Libre; SMBG = Self management of blood glucose; BG = blood glucose; ACH = all cause hospitalization

FIGURE 1: Decomposition of cost savings result into constituent parts

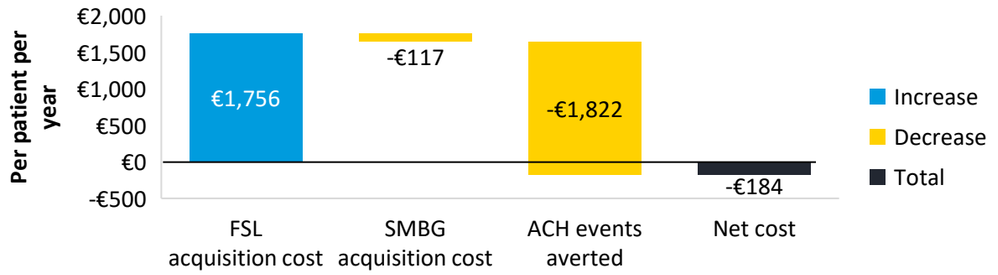
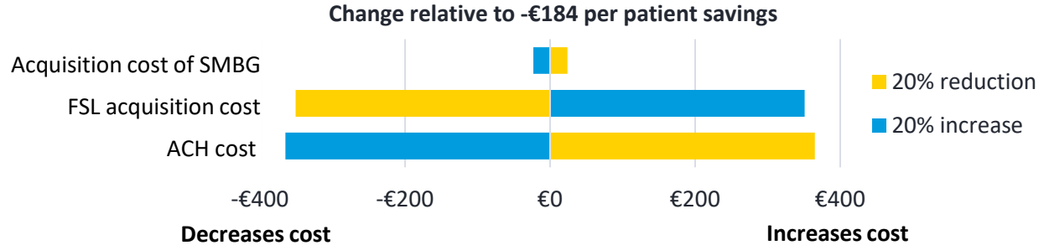


FIGURE 2: One way sensitivity analysis of cost savings. Assumes a ± 20% change in parameter



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