



# SPIN

MEDICAL TOOLING INTEGRATION

The LARS application, developed by Sword consultants for the Flemish Centre for Student Counseling (CLB), is a sophisticated, cloud-based software platform that transformed the traditional paper-based pupil data management into an efficient, electronic format. Designed initially in 2009, it manages data for over 1.2 million pupils and is used by 4,000 users, processing around 30,000 records daily. Key features include a user-friendly interface, integration with various data sources, and the capability to handle complex tasks like COVID-19 track and trace, testing, and vaccination rollouts for students. Its continuous development, based on a collaborative approach with the CLB Network, has made it an essential tool in the realm of preventive health measures for students in Flanders, Belgium.



One of the key preventive health screenings is auditory screenings. For this, the LARS electronic medical dossier (EMD) was integrated with the SPIN test (Speech-in-Noise test) as it was developed by the Flemish Scientific Association for Youth Health Care (VWVJ), commissioned by the Flemish government and in consultation with the Centers for Pupil Counseling (CLB). It was specifically designed for the early detection of noise-induced hearing

damage in young people. The test, a creation of the Experimental Otorhinolaryngology (ORL) research group at KU Leuven, is highly user-friendly and automated, making it suitable for CLB screenings. Its primary function is to assess speech comprehension in noisy environments, which is particularly effective in identifying minimal noise-induced hearing damage.

During the SPIN test, students wear headphones and listen to short sequences of three numbers amidst background noise. They are then required to enter these numbers on a tablet. This method, developed by the ExpORL research group of KU Leuven, has been validated through research to produce reliable results. It is found to be more appropriate for screening contexts than traditional tone audiometry. Extensive practical evaluations conducted during the 2014-2015 school year, and the widespread implementation across Flanders in the 2016-2017 and 2017-2018 school years, have enabled the refinement of age-specific referral criteria to ensure a balanced and responsible referral policy.

The SPIN test is systematically applied throughout Flanders for 11 and 14-year-olds, specifically students in the last year of primary and 3rd year of secondary education. The implementation of these guidelines involved guidance and support for the centers to achieve a standardized and high-quality application of the screening program at the Flemish level. This wide-scale deployment underscores the commitment to proactive health measures and the well-being of young learners in the region.