

# Suicide Intelligent Care Agent SulCA

Integrates a comprehensive analysis of brain structure and functional connections, providing a depression suicide risk prediction based on brain functional imaging.

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## System Features

- Longitudinal tracking of brain function
- Ensuring safety and privacy protection
- Clear visualization with charts



## Suicide Intelligent Care Agent

### System Overview

- Addressing the rise in elderly depression due to societal aging.
- Aiding physicians to better understand patient brain states via integrated analysis of brain structure and function.
- The system predicts suicide risk from the analysis, aiming to enhance the opportunities for early treatment intervention.

### Research Background & Motivation

- The population of elderly depression patients is rapidly increasing.
- Compared to general depression, elderly depression patients have a higher mortality rate.
- Suicide among these patients brings a heavy negative impact on families and society.

系統登入

醫護人員登入

Username

Password

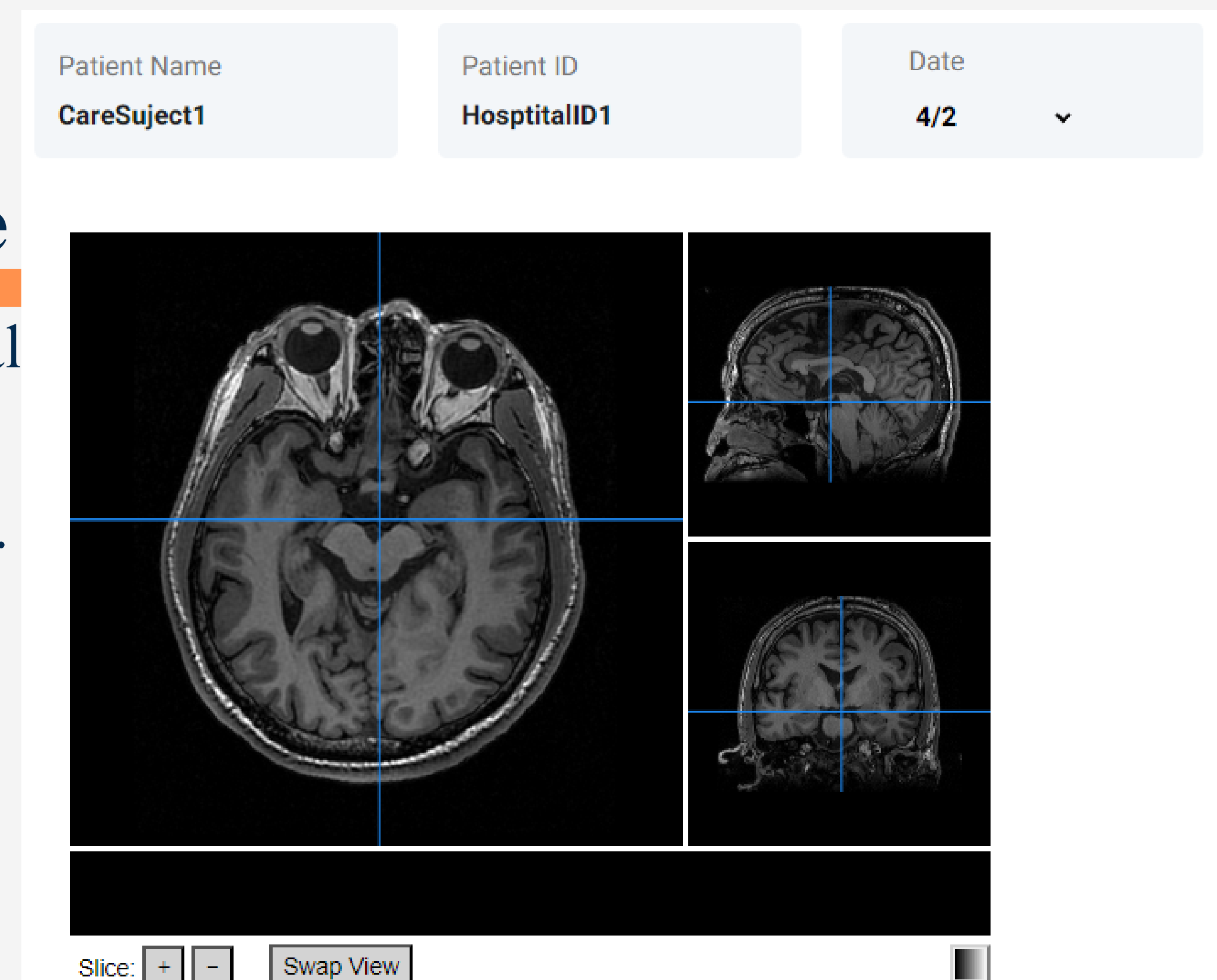
Log in

### I. Accounts

- Highly secure account mechanism.
- Medical personnel view prediction results through individual accounts

### II. Brain Structure

- Rapid display of brain structure through MRI tri-axial cross-sectional images.
- Added date feature to assist in tracking structural changes.



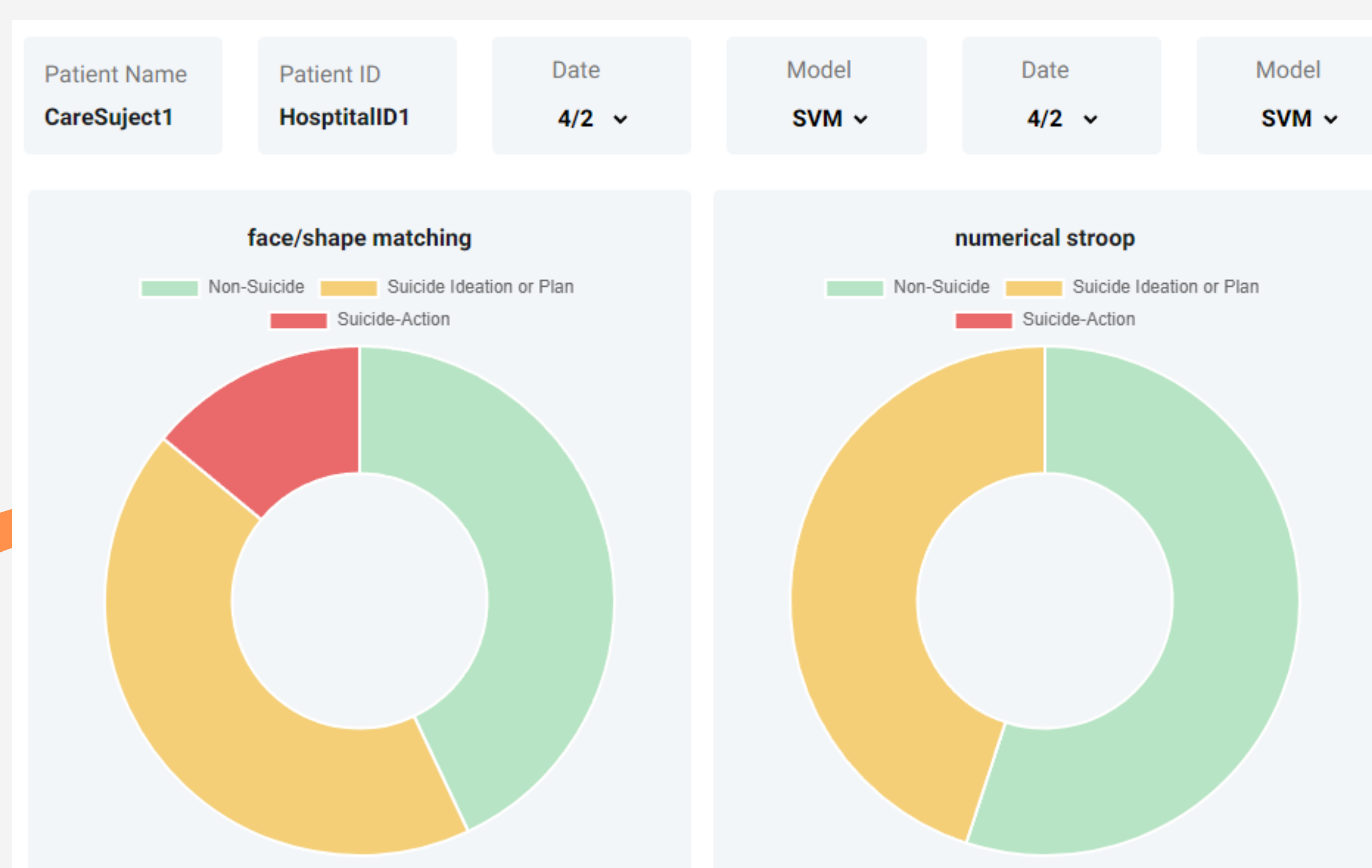
### III. Brain Functional Connectivity

- Displays significant abnormal functional connections compared to the non-suicidal risk population.
- Seven colors indicate brain regions with abnormal functional connections.



### IV. ML Model Prediction

- Provides various models.
- Visualizes prediction results for different dates.
- Offers different layout formats.



### V. Single Analysis Result

- Focuses on displaying a single prediction result.
- Pie chart shows the proportions of different suicide risk levels.

To be continued...