



# TICTUS APP:

## A SMARTPHONE APP TO TRACK WORKFLOW AND IMPROVE STROKE ACUTE CARE

A. Barragán<sup>1</sup>, C. Urbano<sup>1</sup>, S. Perez<sup>1</sup>, J. Montaner<sup>1</sup>  
Universitary Hospital Virgen Macarena

### Background and aims:

Stroke is the leading cause of disability and the second cause of death globally. In addition, research is currently increasing in the different phases of the stroke code, with many compatible clinical trials. However, short therapeutic windows represents a limitation for patients' enrollment. We hypothesized that a smartphone app could be useful to monitor and improve reperfusion therapy onset and identify possible candidates for clinical trials.

### Conclusions:

TICTUS app could be a useful tool in the routine management of stroke patients with implication in speeding-up clinical assistance, facilitating audits and research.

### Methods

JAVA 7 for Android devices  
Requirements:

- Not to interfere with patient care
- Easy-to-use
- Security cloud-base storage
- Visual, feedback notifications
- Password limited download of data prepared to process
- Dynamic and flexible customizable algorithm on clinical trials available in different hospitals including alerts to study coordinators.

A tested phased was made during a month to get a first version pre-registered. After registration of the app, a pilot phase was performed with a satisfaction survey.

### Results (1 month): 15 patients (100% ischemic strokes)

- 7 patients had a known onset and 8 were wake-up strokes or had an unknown onset.
- 2 patients were treated with r-tPA and 7 with endovascular treatment.
- 12 patients were candidates for research studies, with a recruitment rate of 85% (10 patients).
- 75% of users rated the handling of the app as easy-
- 100% would recommend its use to a colleague.

**FORMULARIO DE REGISTRO**

00:00:38

INSERTE NUHSA U OTRA IDENTIFICACIÓN

NUHSA

FECHA DE NACIMIENTO

INDIQUE LA FECHA Y HORA DE LLEGADA AL HOSPITAL:

AYER  HOY  OTRO DIA  AHORA

¿SE CONOCE CUANDO OCURRIÓ EL ICTUS?

INDIQUE LA FECHA Y HORA DE INICIO:

AYER  HOY  OTRO DIA  AHORA

¿HUBO NOTIFICACIÓN PREVIA DEL CENTRO COORDINADOR?

**¡HAS COMPLETADO EL FORMULARIO!**

VERIFICA QUE LOS DATOS ESTÁN CORRECTOS ANTES DE GUARDARLOS

DOCUMENTO DEL PACIENTE: AN1234567890

INICIO DEL ICTUS: CONOCIDO

TIPO DE ICTUS: ISQUEMICO

FIBRINOLISIS: NO

TROMBECTOMIA: NO

NIHSS: 8

ASPECT: 4

**RESULTADO**

Tiempo transcurrido: 0 hora(s) y 1 minuto(s)

(BIOFAST, PROTEUS)

¿QUÉ DESEA HACER?

**REGISTRAR PACIENTE**

**VOLVER**

