

Title: Development and Clinical Evaluation of an AI-Driven Mobile Application for Monitoring seizures.

To be included in the application:

1. To be filled once upon registration:

a. Patient demographics

- **Name** -> *input manually*

- **Age** (Years) → Input manually (*or calendar for birth date*)

- **Gender** (Male/Female/Other) → Dropdown menu

- **Type of epilepsy**: drop down menu : Focal, generalized, unknown

b. Current medication (*on doit avoir l'option de l'edit*)

- **Current Medication (prescription)** → Search (*liste de tous les médicaments possibles*)

o Must be a list of meds in case the patient uses many

- **Menstrual Cycle Status** (Dropdown menu): By month

o Regular

o Irregular

o Pregnancy (should reset after 9 months)

o Menopause

- **Current Dose** → *spécifiée dans la liste des médicaments, donc on peut l'enlever (pills)*

- **Frequency of Medication** → Dropdown menu (e.g., Daily, Twice a day, As needed, etc.) *decimal (number of pills per day)*

2. To be filled daily:

a. Sleep & Fatigue (or API)

- **Sleep time** (time of sleeping) → Input manually

- **Wake time** (time of waking up) → Input manually

- **Sleep quality** (scale 0-10) → *Self-reported (linéaire avec un accent sur le 5 pour la prendre comme référence)*

- **Daytime fatigue** (scale 0-10) → Self-reported

- **Nap** → Yes or No (*is it included in the sleep tracker API ??*)

il faut qu'il y ait un (+) dedans

o **Sleep time** (time of sleeping) → Input manually

o **Wake time** (time of waking up) → Input manually

o **Sleep quality** (scale 0-10) → Self-reported

b. Medication Adherence

- **Medication taken on time** (Yes/No) → Self-reported

- as needed medication (PRM)

a. If yes how many pills?

b. If no PRM meds, must be grey

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how does this work

- **Missed doses** (Number of pills missed) → Self-reported (decimal)
 - a. From which medication? (must show the list of his current medications, not all of the meds)
- c. *Mental health*
 - **Stress level** (scale 0-10) → Self-reported (0 being the lowest level of stress, 10 the highest level)
 - **Mood level** (scale 0-10) → Self-reported (0 being severely depressed, 10 being very high)
 - **Significant Emotional Event Today** (Yes/No) → Self-reported
 - o **Severity of the event** → Scale from 0 to 10 (0 = No stress, 10 = Extremely stressful) → Self-reported
- d. *Alcohol and substance use*
 - **Alcohol consumption** (Yes/No + quantity if Yes) → Self-reported (Glasses / Shots)
 - a. + liste es types d'alcools
 - b. Cocktail / mix
 - **Smoking/Nicotine use** (Yes/No + quantity per day) → Self-reported
 - a. Plusieurs options: cigarettes, vape, cigare, ...
 - **Narguileh** (Yes/No + quantity per day) → Self-reported
 - **Caffeine use** (including coffee, tea) (Yes/No + quantity per day) → Self-reported
 - a. Unit: cups
 - b. Options: tea, coffee
 - **Energy drinks** (Yes/No + quantity if Yes) → Self-reported
 - a. Options (dropdown)
 - **Recreational drug use (Free Text)** (Yes/No + type of drug + quantity per day) → Self-reported
- e. *Food and diet*
 - c. **Meal Frequency** (Number of meals per day) → Numeric Integer
 - d. **Amount of Water Intake** (Liters per day) → Input manually, Decimal in liters
- f. *Physical activity*
 - **Did you exercise today?** (Yes/No) → Self-reported
 - **If yes, type of activity** (Walking, Running, Gym, Swimming, Other) → Dropdown menu
 - **Duration of exercise** (Minutes) → Input manually - Integer
 - e. **Intensity level** (Low, Moderate, High) → Self-reported
- g. *Menstrual cycle (For Female Patients)*
 - Period?** (yes / No)

3. Main measure

a. *Seizure Tracking*

- f. **Seizure occurrence** (Yes/No) → Self-reported (appears upon opening the app. The rubric must appear very well)
- g. **Seizure type** (Dropdown menu: Focal, Generalized, Absence, Myoclonic, etc.)
- h. **Seizure duration** (Seconds/minutes) → Self-reported
- i. **Aura symptoms** (Yes/No) ?
- j. **Postictal symptoms** (Fatigue, confusion, headache, other) → Checkboxes