

Vitacam[®]

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VITACAM TRIAGE: MEASURE RESP RATE, HEART RATE & RHYTHM IN REAL TIME



EMERGENCY DEPARTMENT
TRIAGE



CLINICS IN DEVELOPING
COUNTRIES

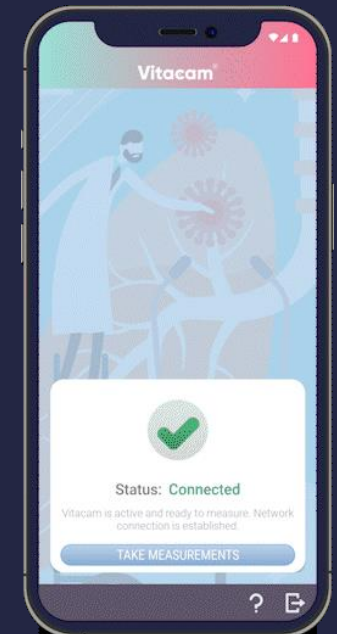
VITACAM MOBILE: MEASURE & TRACK PERIODICALLY



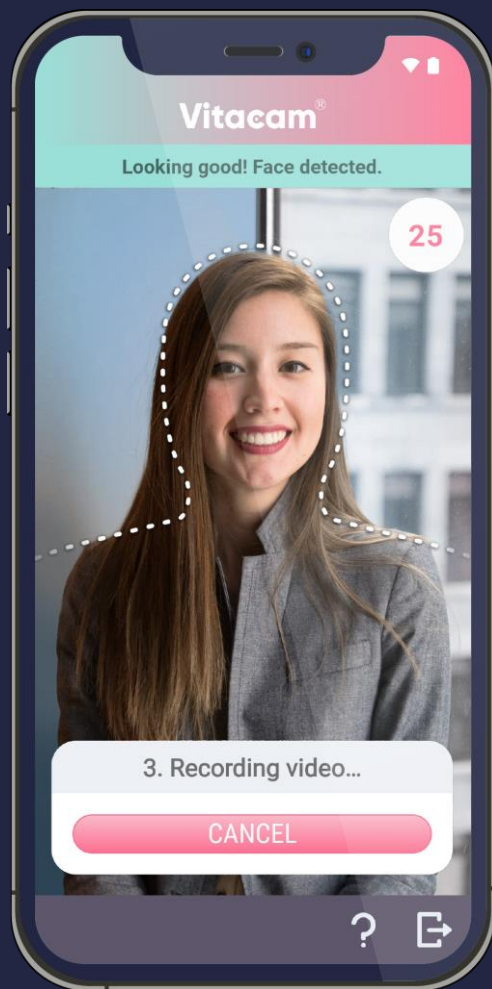
HOME CARE –
CHRONIC CONDITIONS



ELDERLY CARE



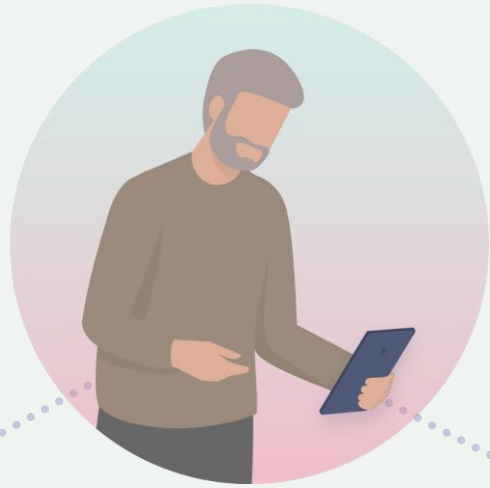
VITACAM: FOR BOTH CLINICAL AND HOME SETTINGS



A HEALTHCARE ASSISTANT IN YOUR POCKET

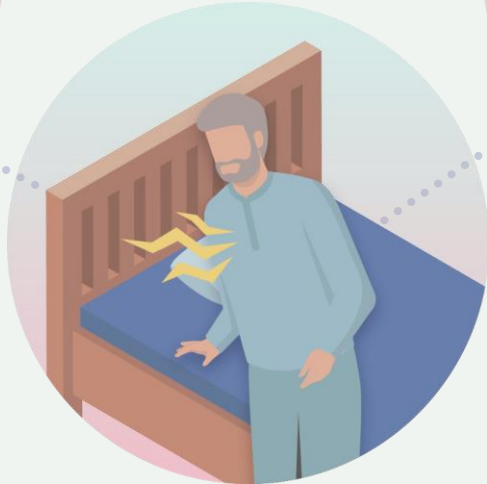
The **most accurate** software application for measuring vital signs using the smartphone camera with **the appropriate regulatory approval**

- For remote monitoring and virtual wards
- Allows patients to be monitored at home, saving costs of hospital bed days and expensive patient monitoring devices
- The first app measuring blood oxygen to enter clinical trials (Autumn 2023)
- Available for integration into other apps and platforms.



On-boarding

Vitacam functionality is available by downloading app



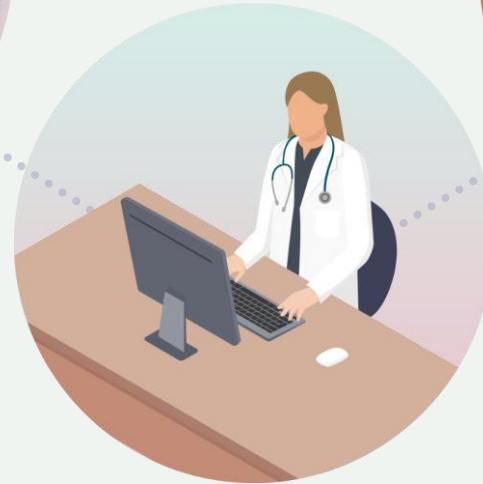
Trigger

Patient or a carer can use based on clinical guidance or upon need



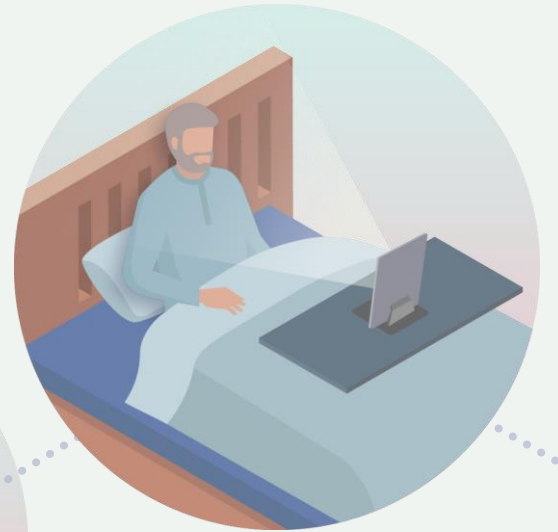
Measurement

Measuring key vital signs using phone or tablet camera while sitting or lying in bed



Analysis

A remote clinician views the results or is notified if a threshold is reached



Action

Keep monitoring or apply intervention or optimize medication, as determined

PATIENT EXPERIENCE

CURRENT USE CASES

1) VIRTUAL WARD SUPPORTING EARLY DISCHARGE OF PATIENTS FROM HOSPITAL

- Virtual ward means setting up early discharge patients with pulse oximeters and other devices with a smartphone hub, for 2-4 weeks
- NHS England target for Dec 2024 is 24 000 virtual beds with only 10 000 achieved so far – a growing market

2) REMOTE MONITORING OF PEOPLE WITH CHRONIC CONDITIONS AT HOME

- **Digital First DK: home monitoring for COPD, Heart Failure**
- E.g. ETAPES FR programme with 150 000 patients

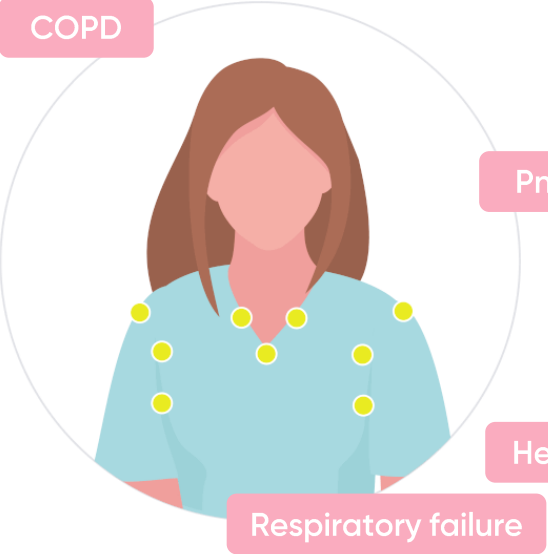
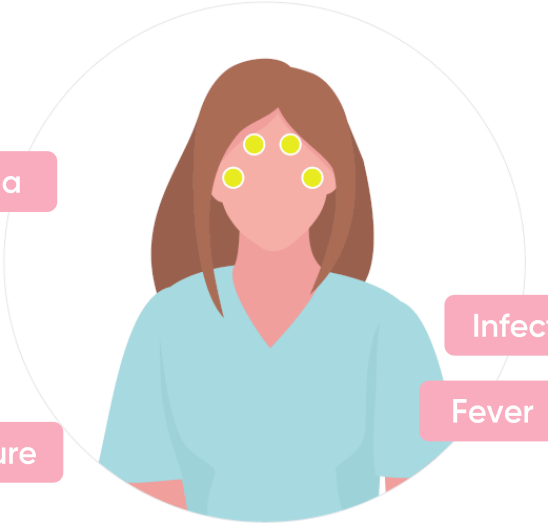
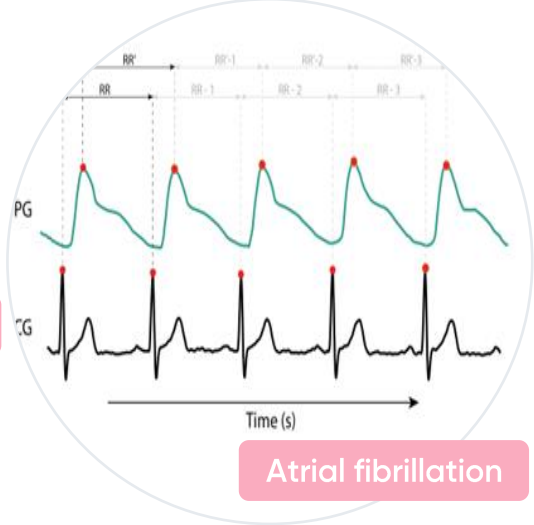
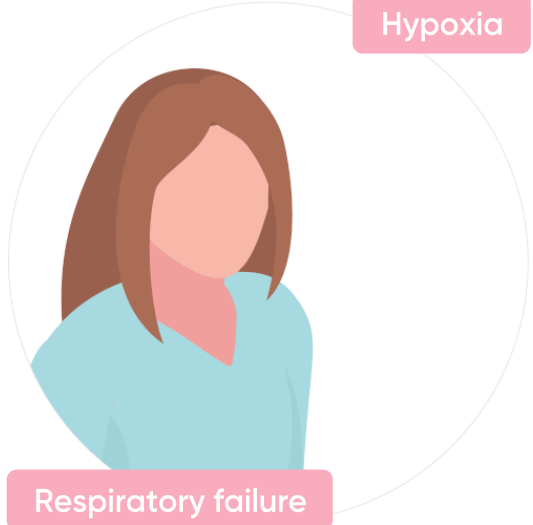
VITACAM BENEFITS:

- Save €300 per patient per year in hardware
- Save warehouse and logistics costs
- Increase coverage of patients with scalable and easy-to-use solution



*Source: Market Data Forecast, 2023

SCIENCE-DRIVEN INNOVATION: FIRST TO MARKET WITH OXYGEN SATURATION

Respiratory rate	Heart rate pulse	Heart rhythm & variability	Oxygen saturation
<div><div><div>COPD</div><div><div>Pneumonia</div><div>Heart failure</div><div>Respiratory failure</div></div></div></div> <div><ul style="list-style-type: none">• Available now• Derived from motion analysis of chest• Mean Absolute Error: 2 breaths per minute (vs gold standard)</div>	<div><div><div><div>Infection</div><div>Fever</div></div></div></div> <div><ul style="list-style-type: none">• Available now• Algorithms detect subtle colour changes of the face from pulsatile blood• Mean Absolute Error: 3 beats per minute (vs gold standard)</div>	<div><div><div><div>Atrial fibrillation</div></div></div></div> <div><ul style="list-style-type: none">• UNIQUE SELLING POINT• Available now• Based on statistical analysis of inter-beat intervals.</div>	<div><div><div><div>Hypoxia</div><div>Respiratory failure</div></div></div></div> <div><ul style="list-style-type: none">• UNIQUE SELLING POINT• Ethics & regulator approved• Under clinical validation (as per ISO 80601-2-61:2017)• Targeting 2024</div>

CLINICAL STUDY: CORNWALL, UK Q4/22 – Q1/23

Context

- Patients with COPD/Atrial Fibrillation/Hypertension
- Often hard to measure due to weak pulse. Living in remote areas.
- Average age: 75 years
- Measured over 15 minutes by two nurses, comparing to manual counting over 1 minute and ECG every 15 seconds

Results

- Respiratory rate accuracy*: 1,7 breaths/min – BETTER THAN STATE OF ART
- Heart rate accuracy*: 3-4 beats/min (vs nurse/ECG) – SAME AS STATE OF ART
- My favourite feature: "provides a lot of insight into potential problems." "GP access is limited, it could be really useful"
- "worlds apart in terms of advancement from telehealth,", "fantastic"

* Root Mean Square Error
To be published this year in a scientific journal.



IMPACT IN AN ASSISTED LIVING FACILITY

"Not all health changes are visible, especially for the frail. With Vitacam, it's possible to escalate treatment sooner."



PILOT @ KATAJA, FINLAND

- Nurse on-duty during the day
→ carers responsible for most care



RESIDENTS – MANY WITH DEMENTIA

- Dementia can over-shadow everything else
→ Possible to miss changes in condition

IMPACT:

- Positive acceptance of video for medical purpose
- 3 escalations/interventions with 3 heart failure patients: 1 hospitalisation, 2 changes in medication

GET IN TOUCH

Try out the app:



Apple App Store



Google Play:



Request credentials by email to
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