

Home monitoring in AS

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Introduction:



Patients undergoing ambulatory surgery are discharged the same day, but it's crucial to ensure their well-being and recovery after leaving the hospital.



Ambulatory surgery patients often face various risks and complications post-discharge, ranging from surgical site infections to adverse reactions to anesthesia.



Timely and effective post-operative monitoring is essential to detect and address these issues.



Monitoring after discharge can reduce readmissions and enhance patient outcomes.

“I have a dream...”

Martin Luther King Jr.





My dream...

To make AS a safer and more accessible offer to:

- More patients
- Clinically complex patients (obese, OSA, elderly...)
- Patients with special needs
- Patients submitted to more complex surgical procedures (e.g. colorectal, bariatric, spinal surgery)

How?

Better and more reliable home monitoring!





What parameters would I like to monitor?

- BP
- HR and Rhythm
- RR and SpO₂
- Temperature
- Physical activity and positioning
- Picture of Surgical wound, drains and probes...







Cores de bracelete Os seus estilos

- Meia-noite
- Light Purple
 - Orange
 - Dark Purple
 - Green
 - Dark Blue
 - Black**
 - Light Grey
 - Blue
 - (PRODUCT)RED**

Veja ainda mais tipos de bracelete. Experimente caixas com diferentes materiais. Crie o seu próprio estilo no Apple Watch Studio. Só na Apple.

Crie o seu estilo

Tamanho da caixa

41 mm
Desde 439 €
Para pulsos de 130 a 200 mm.

45 mm
Desde 469 €
Para pulsos de 140 a 220 mm.

© BCE ECB EЦБ EZB EKP EKT EKB BĀE EBC 2015



Msgraghi

20

20

EURO
ΕΥΡΩ
ΕΒΡΟ

U03003



Página inicial da loja

Produtos ▾

Ítems promocionais

Mais vendidos

Avaliação

Medidor pressão arterial automático, braço, monitor bp, pressão arterial embutida, máquina tonômetro para medição de pressão arterial

★★★★☆ 3.0 ▾ 2 avaliações 7 pedidos



€ 4,14 € 6,27 -34%

Preço incluindo IVA

cor: usb line



Quantidade:

- 1 + 1999 jogos disponíveis

Delivery 📍 Portugal

Frete Grátis

Para Portugal via China Post Air Parcel

Estimativa de Entrega: 27 Dez.

[More options ▾](#)



Comprar agora

Adicione ao carrinho

📍 108

🛡️ **Proteção ao Consumidor de 75 Dias**
Garantia de Reembolso

Desconto -59 %



Monitor de Pulso/Oxímetro de Dedo Azul/Branco

CONDIÇÃO: NOVO | EAN: 5902802919939

4,90 € PVP 11,90 €

Promoção de 19-11-2021 até 26-11-2021 (Limitado ao stock existente)
Preço exclusivo Online

 **Em Stock! Recebe a 22 de Novembro**

1  **Comprar**

Disponibilidade

- Online (Disponível)
- Edifício You Get (Disponível)
- Gândara dos Olivais (Disponível)
- Caldas da Rainha (Disponível)

Olá :) Como podemos ajudar?



*Pilhas não incluídas.



-81%

Non-Contact Infrared Thermometer



YOU LIKE IT

Termómetro Infravermelhos Qhk - Ideal Para Crianças E Adultos.



★★★★★ (1)

Vendido por **You Like It Store** 📍

9.99€ ~~54.90€~~
Promoção válida até 31/12/2021

🔥 15% EXTRA com voucher - **DOTTEXTRA15**

Produto disponível

- 1 +

ADICIONAR AO CESTO

🚚 Envio gratuito em encomendas deste vendedor acima de 75.00€

Entrega estimada: **Superior a 5 dias úteis**

Problem:



Patients or carers would have to fill a form/chart and then send it to the surgical team



Liability of the data?



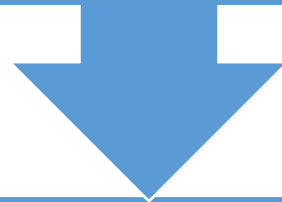
Delay on identifying a potential complication



Confidentiality?

Solution:

We need real-time/LIVE monitoring of patients with reliable devices, already approved for other medical purposes:



Several studies have demonstrated advantages of using telemonitoring in multiple fields of medicine:

follow up of asthma in
pneumology,

heart failure in cardiology,

hypertension and diabetes
in family medicine

Preliminary tests



**Wireless remote monitoring system
created to continuously collect
physiological data at home**

“Real-time Assessment”



Variables that may be collected include:

heart rate,

heart rate variability,

ECG-derived respiratory rate,

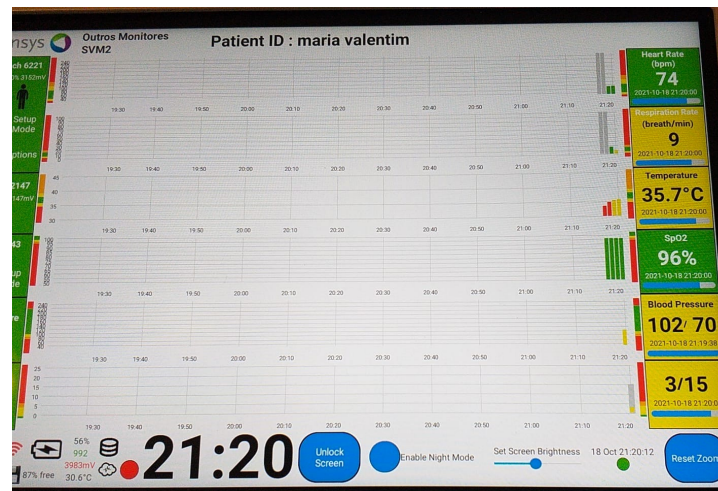
skin temperature,

patient positionings and activity

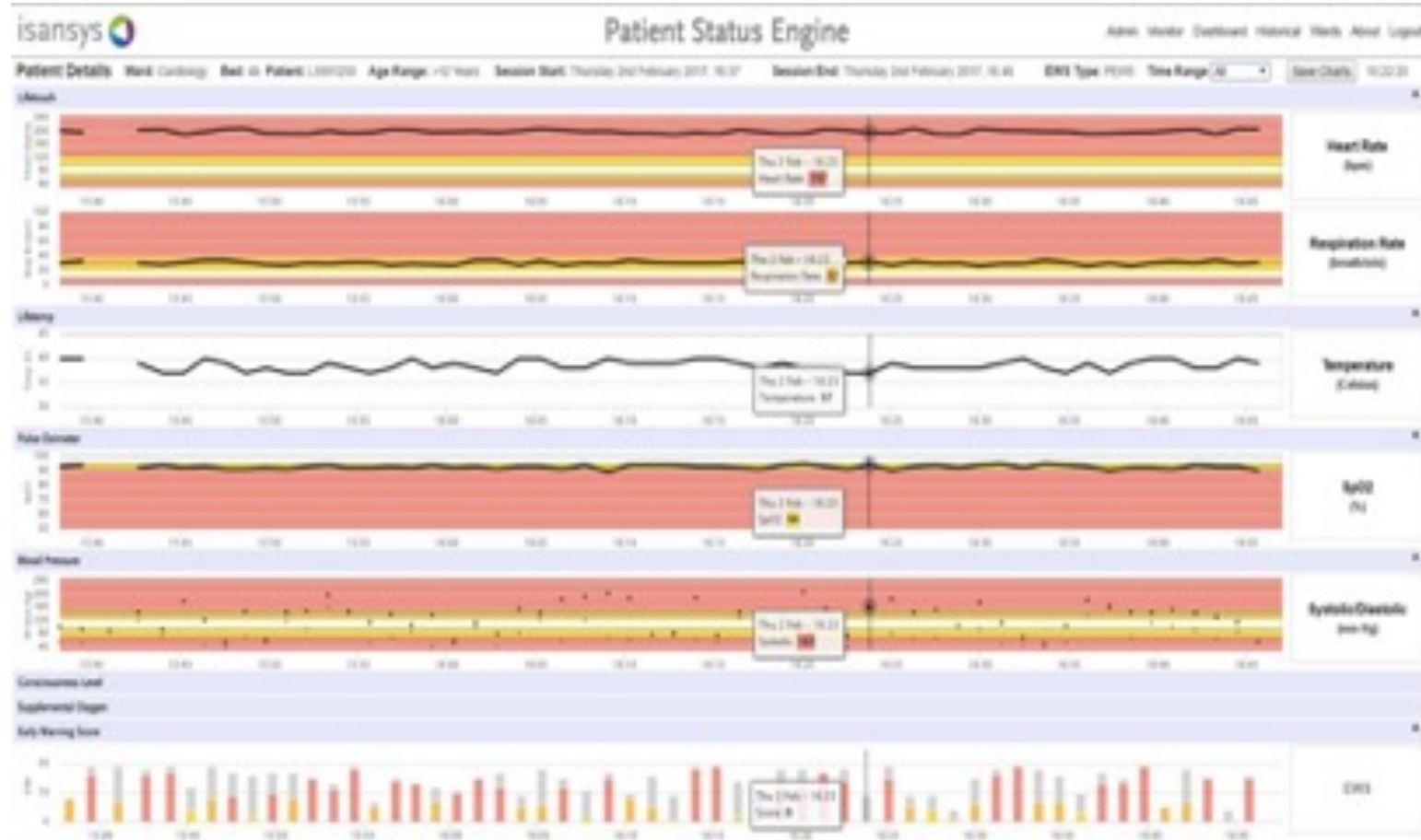
SpO₂

non-invasive blood pressure.



“Real-time Assessment”



Trends



Get Alerts
according to pre-
defined limits









isansys  Cardiology 2B  Patient ID : AG150416

Please select the Patients Age range

0-1 years 1-5 years 5-12 years >12 years Adult

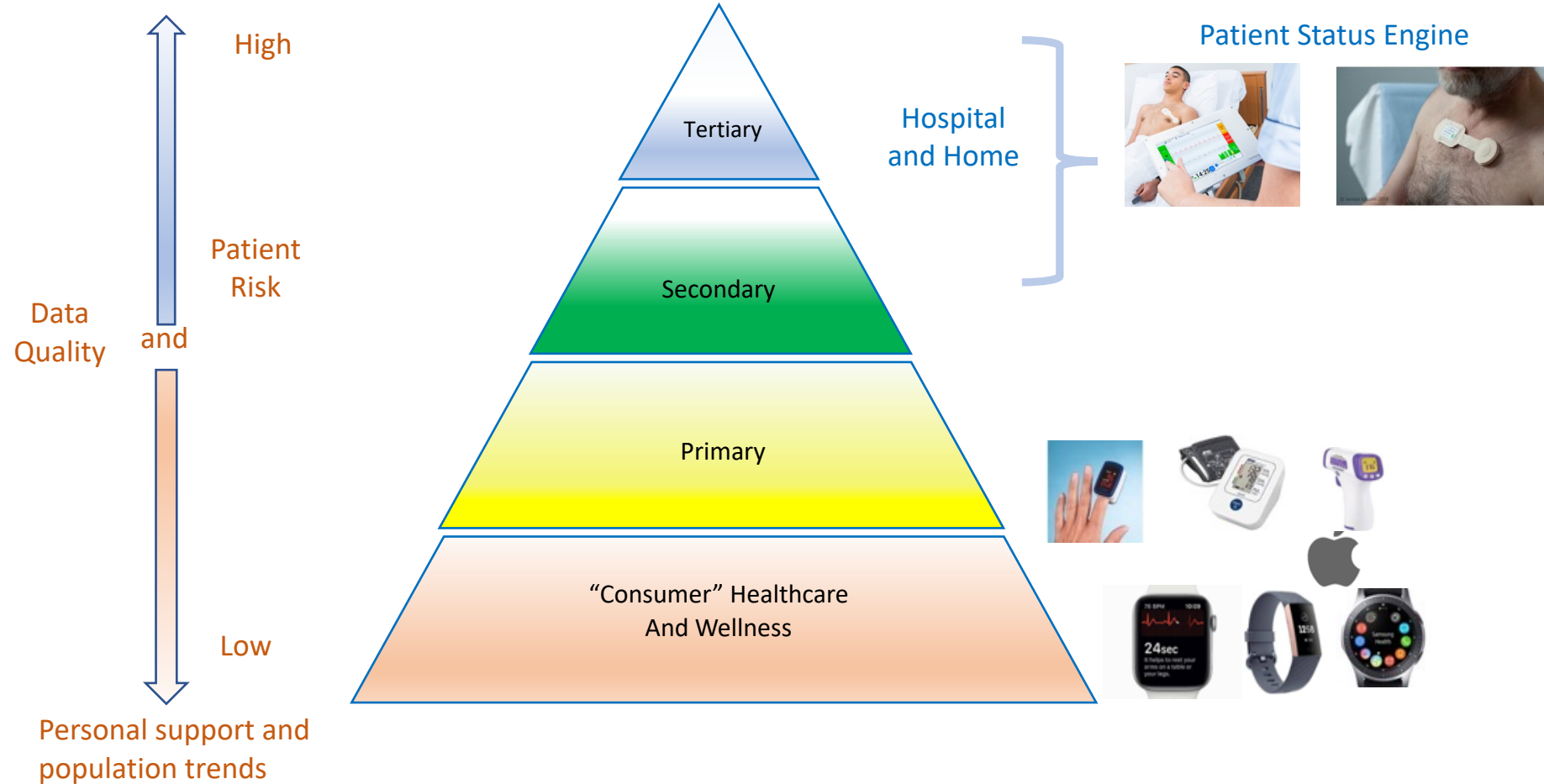
Adult Early Warning Score thresholds below

Parameter	Red	Yellow	Green	Yellow	Orange	Red
Heart Rate	< 41	41 - 51	51 - 91	91 - 111	111 - 131	> 131
Respiration Rate	< 9	9 - 12	12 - 21	21 - 25	> 25	> 25
Temperature	< 35	35 - 36	36 - 38	38 - 39	> 39	> 39
SpO2	< 92	92 - 94	94 - 96	> 96	> 96	> 96
Systolic Blood Pressure	< 91	91 - 101	101 - 111	> 111	> 111	> 220

Back   100%  85  75% free 4350 OVR  16:15  Enable Night Mode  Set Screen Brightness 16:15:24 

Monitoring Technology & Devices

Individual accuracy for precise clinical decision making



Drawbacks



Parameters such as pain and postoperative nausea and vomiting cannot be assessed



The cost of equipment outweighs the cost of hospitalization



Non-disposable devices need to be returned to the hospital





Difficult to import data to Patient's Hospital records

Conclusion: Still Needs to prove clinical benefit!!!

ARTICLE OPEN



Mobile devices and wearable technology for measuring patient outcomes after surgery: a systematic review

Stephen R. Knight¹ [✉], Nathan Ng², Athanasios Tsanas³, Kenneth Mclean¹, Claudia Pagliari³  and Ewen M. Harrison¹

Complications following surgery are common and frequently occur the following discharge. Mobile and wearable digital health interventions (DHI) provide an opportunity to monitor and support patients during their postoperative recovery. Lack of high-quality evidence is often cited as a barrier to DHI implementation. This review captures and appraises the current use, evidence base and reporting quality of mobile and wearable DHI following surgery. Keyword searches were performed within Embase, Cochrane Library, Web of Science and WHO Global Index Medicus databases, together with clinical trial registries and Google scholar. Studies involving patients undergoing any surgery requiring skin incision where postoperative outcomes were measured using a DHI following hospital discharge were included, with DHI defined as mobile and wireless technologies for health to improve health system efficiency and health outcomes. Methodological reporting quality was determined using the validated mobile health evidence reporting and assessment (mERA) guidelines. Bias was assessed using the Cochrane Collaboration tool for randomised studies or MINORS depending on study type. Overall, 6969 articles were screened, with 44 articles included. The majority ($n = 34$) described small prospective study designs, with a high risk of bias demonstrated. Reporting standards were suboptimal across all domains, particularly in relation to data security, prior patient engagement and cost analysis. Despite the potential of DHI to improve postoperative patient care, current progress is severely restricted by limitations in methodological reporting. There is an urgent need to improve reporting for DHI following surgery to identify patient benefit, promote reproducibility and encourage sustainability.