**Heuristik**

**What’s the product?**

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| Identifiers for patients in hospitals. |
| Fingerprint patient identification for hospitals. |
| A fingerprint identification system for the hospital workflow. It is not clear if the product is only software, or also a fingerprint reader. |
| A way to identify patients through the whole process they go in hospitals |
| Patient identification methodology by fingerprint |
| A device based on fingerprint to identify patients |
| Software to identify patients |
| Biometric format for ER |
| A better patient identification bracelet using a biometric marker |
| Bio-metric identification: Fingerprint technology combined with database management and tracking |
| Biometric solution for patient identification |
| Fingerprint patient identification system |
| fingerprint identification with AI, management, and tracking. |
| fingerprint + AI |
| Fingerprint identifier |
| Fingerprint technology to replace hospital bracelets for identification |
| Fingerprint ID for medical identification |
| Fingerprint Identification of patients |
| Software to identify, manage, and tracking of the patient. |

**What’s the problem they are trying to solve?**

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| Misassignment of patients' identifiers. |
| Diagnostics or ID errors. |
| Errors in patient identification, mainly due to problems with bracelet technology |
| Misidentification of patients inside hospitals |
| Unclear - claim huge death and burden numbers for patient ID issues, but I’m not sure the tech is fundamentally superior for that clinical issue. |
| Hospital identification mistakes |
| Wrong identification of patients in the healthcare system. |
| Passive identification of patients, particularly in ER or ambulatory settings |
| Medical errors due to incorrect identification |
| Identification issues in care facilities |
| Identification issues that result in healthcare errors. |
| Team claims bracelets are error prone. But not enough evidence yet about the nature of these errors, their cause, at what stage of hospitalization they occur. More evidence is needed before the solution makes full sense. |
| Death due to illness identification errors. Current Identification bracelets could have Printing issues and human error, or Patient refusal and allergy. |
| current problems in barcode-based patient ID |
| Avoiding mistakes in patients identification |
| Lower cost, less recycling, greater accuracy |
| Marketing fingerprint use for patient identification |
| Reduce identification errors in patients |
| Confusion or error with bracelets people in hospitals. |

**Comments/Questions**

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| I believe that in the US may be difficult to implement, specially for privacy issues. But, I believe there is a big opportunity in Latam, in which the fingerprint processes are widely used and privacy is not a big concern. I am thinking in Chile, all hospitals use fingerprints for identifying patients for insurance purposes. This technology can be adapted and linked to health records. |
| 1. The presenter is too convinced about his solution. He should be more open to doubts and comments from the audience.  2. The integration of the technology in private / public health systems is not clear. Are you going to partner with EHR vendors? |
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| Would be good to pinpoint very carefully the value proposition - you have an interesting idea, but can lose credibility claiming you’re in a $400B clinical opportunity market.  The US will be a VERY challenging market for this because of the number and type of healthcare systems, insurance providers, electronic health database providers, and patient populations. |
| I guess you cannot patent it. Is it easy to copy by other firms? |
| For this problem, I think the environment-friendly is not a requirement.  Share the source of the market estimation size. Seems high.   Why AI? You are more robust when matching fingerprints, but is it needed for you aplication?  Are the stakeholders (surgeons, nurses, etc...) willing to carry a fingerprint reader? What is that fingerprint reader? A phone / app or a dedicated device?  Given that you are using biometrics, why not using face recognition?  The idea is great, but the implementation may be very tricky. There are many silos. Hospital information systems tend to lock a hospital down and not let any other system inter-operate. Are you a complete hospital information system or an add-on to them? |
| Huge issue for adoption in the US: is there a niche were biometrics have been adopted as part of care plan? |
| What about cybersecurity?  What about privacy rules? When someone comes in through emergency, they may not conscious or of sound mind.  You have to talk to each EHR, like EPIC  How does this match up EU EHS. |
| \* Good presentation: Compelling need described, value proposition, good solution  \* I have a hard time believing the number of patients that have identification issues? Need evidence.  \* What are the privacy issues that could prevent this solution from being broadly utilized?  \* What is the company IP?  \* Whta is competitive situation?  \* What tools and products are needed by care provider to utilize your solution?  \* Costs? |
| Patients refuse to use bracelets, but they refuse way more to have their fingerprints recorded, how are you going to overcome that issue? Maybe the sample you used to provide that 99% of people agreeing to get their fingerprints recorded is not representative of the actual situation. Mankind behaves in weird ways, and they do agree to use it in the gym, but completely refuse to use it in scenarios where it could be helpful, and that's a reality in Spain. Even worse in the US, where there's plenty of people that don't even have an ID.  By the way, I hope your method is not "heuristic", as life is more important than a method that does not guarantee to be optimal even in its name. |
| You give reasons why bracelets are prone to error. Are there any studies to validate these claims?  If part of the problem is behavior and diligence during patient transfer and interaction, then could the same type of error also occur with your fingerprint technology?  Will it also be necessary to have readers throughout the hospital? What could be the cost, and can hospitals afford this? Also, how vulnerable is the system to Wi-Fi connection? |
| how would you deal with privacy of fingerprints and patient medical records. does encryption ensure privacy? how to get approved? |
| You wanted to solve the current barcode-based patient ID since identification error happens due to printing error, refuse by patient, allergies, wearing off, and so on.   The same thing can happen for fingerprint identification since patients can still have trouble providing fingerprints for example mentally ill patients or physically uncontrollable patients. Also, the accuracy of fingerprint scanners would be another factor before going to AI processing.   All afterward AI processes and data management can be done with the barcode-based IDs. Not clear why this should be done with a fingerprint. |
| Great product it looks like it will be very useful |
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| I thought iris scanning would be next pt identifier, has this been looked at ? |
| The numbers look way too high. All these deaths are from identification errors? I find it hard to believe that every year around 0.1% of USA population dies because of this. Where these data were obtained? The numbers may be from patients who may suffer this problem, but probably not a deadly problem. |
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**From the chat question burst:**

Why is the cost per death so much higher in the US v Europe?

How can you be GDPR compliant? The person in the picture was unconscious and thus cannot approve privacy?

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Do you have to have a reference data for everyone?

Why AI? You are more robust when matching fingerprints, but is it needed for you application? It seems that it would be more valuable in other areas….

What is needed by a care provider to utilize your solution?

Are the stakeholders (surgeons, nurses, etc...) willing to carry a fingerprint reader?

How would you deal with privacy of fingerprints and patient medical records. does encryption ensure privacy? how to get approved?

Is there a similar technology in the market? Privacy issues?

Why would a hospital want to use another vendor than the EMR vendor to implement this? Wouldn’t it be more appropriate to sell this technology as an add-on to the EMR systems like Cerner/Oracle, etc.???

You give reasons why bracelets are prone to error. Are there any studies to validate these claims?

Does the system talk to EPIC?

It’s a little unclear that this will solve a tangible clinical problem, versus a hospital workflow problem (which is still a problem worth solving). Might be worth clarifying.

Is the technology used at every patient identification event?

So you need to have fingerprint readers with every nurse or bed

The gym example is not a good one. The clients of the gym are very different from hospital patients in age, technology friendliness, etc.