

Five Ways Google Glass Can Be Used In A Hospital

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I recently had the opportunity to test Google Glass.

It's basically an Android smartphone (without the cellular transmitter) capable of running Android apps, built into a pair of glasses. The small prism "screen" displays video at half HD resolution. The sound features use bone conduction, so only the wearer can hear audio output. It has a motion sensitive accelerometer for gestural commands. It has a microphone to support voice commands. The right temple is a touch pad. It has Wi-Fi and Bluetooth. Battery power lasts about a day per charge.

Of course, there have been [parodies of the user experience](#) [1] but I believe that clinicians can successfully use Google Glass to improve quality, safety, and efficiency in a manner that is less bothersome to the patients than a clinician staring at a keyboard.

Here are few examples:

1. Meaningful use stage 2 for hospitals. Electronic medication admission records must include the use of "assistive technology" to ensure the right dose of the right medication is given via the right route to the right patient at the right time.

Today, many hospitals unit dose bar code every medication – a painful process. Imagine instead that a nurse puts on a pair of glasses, walks in the room and Wi-Fi geolocation shows the nurse a picture of the patient in the room who should be receiving medications. Then, pictures of the medications will be shown one at a time. The temple touch user interface could be used to scroll through medication pictures and even indicate that they were administered.

2. Clinical documentation. All of us are trying hard to document the clinical encounter using templates, macros, voice recognition, natural language processing and clinical documentation improvement tools. However, our documentation models may misalign with the ways patients communicate and doctors conceptualize medical information per [Ross Koppel's excellent JAMIA article](#) [2].

Maybe the best clinical documentation is real time video of the patient encounter, captured from the vantage point of the clinician's Google Glass. Every audio/visual cue that the clinician sees and hears will be faithfully recorded.

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Links:

[1] <http://www.nbc.com/saturday-night-live/video/weekend-update-randall-meeks/n36353/>

[2] <http://jamia.bmj.com/content/early/2013/06/25/amiajnl-2012-001419.abstract>

[3] <http://www.kevinmd.com/blog/2013/08/5-ways-google-glass-hospital.html>