

Hospital CIO driven *to do things differently*

Dale Lepper, CIO, Antelope Valley Hospital

Technologists usually come in two flavours: Those who want to use computerisation to upgrade existing ideas and those who would rather rethink the system entirely as if they were building things from scratch today.

Antelope Valley Hospital CIO Dale Lepper is the latter, which is unusual for an industry as technologically conservative as healthcare.

‘My ambition has always been to do things in a different way,’ he says. ‘The movement of technology over the last few years has encouraged me because there are always new and different approaches you can take. In the past, you had to look hard for [new] ideas, but in today’s environment, you really don’t.’

‘There’s so much out there. It’s moving so fast’ he adds.

Lepper joined Antelope Valley Hospital in 2013, which may have been the perfect time to bring someone like him in. Popular consumer goods like smartphones and social media had reached a tipping point. People had information at their fingertips, yet many health systems didn’t empower patients with the technology to improve their medical experience. Consumer technology had raised the bar on what patients expected from their providers.

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One prime example is using digital documentation in the operating room. Many hospitals have slowly adapted to digital records, and, in the slow transition, serve the patient with a mishmash of paper, digital, and other documents like x-ray or MRI images, or sonograms. That didn’t make any sense to Lepper and his team.

‘We’re about a year and a half from switching the system, and the question was, “Do we go ahead and computerise them today for the year and a half, or do we wait?” We decided to go ahead and put them on electronic documentation, because the learning experience was so valuable,’ he says. ‘We could actually learn processes and change some stuff, so that when we go to a new system, the processes are already embedded and ingrained.’

Learning is definitely a theme for Lepper and, now, Antelope Valley Hospital, located in the city of Lancaster in northern Los Angeles County. Traditionally, the biggest pause for healthcare organisations is balancing growth with patient needs. Lepper argues that growth is the best for patient needs.

‘Today, when we register someone in the ER and, later, when they come as an inpatient, we re-register them in a different system,’ he says, which is typical of hospitals. He and his colleagues are committed to eliminating the redundancies. ‘That’s one of the reasons we’re making a change in our system is because we want to be fully integrated... That’s very valuable, to have all that data in one area, not only for the flow of the patient, but for the mining of the data.’

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Organised, uniform data can literally be a lifesaver, as it can confirm that every professional working with the patient has access to the exact same medical information. The fewer platforms it has to be translated to, the less room for errors in the duplication. Lepper also realises that, by mining the data, they could discover patterns that will improve the patient's preventative or responsive plan.

'Everything is on the same playing field and everyone accesses the same data. They just view it in a different way and that makes more efficiency,' he says.

As the visionary for the hospital's technology, Lepper prioritises giving the other leaders as well as the public context for how technology can revolutionise – and sometimes not revolutionise – patient care.

'One of the biggest things is educating the people. We work really hard to do the research and then educate, putting it into their language so they understand what that technology will and won't do for them. I think one of the hardest things is that people have misperceptions of what technology can do.'

Lacklustre goals are just as damaging as overinflated expectations. Believing technology can only update, and not revolutionise patient care could make a hospital lose both its vision and its potential efficiency.

'We used to go to the vendors, we'd hand them our paper process and say, "Here, we need this automated." They would take it line by line, and they would convert it as it was.' With Lepper's insight, the hospital realised that this was not the best use of new technology. 'If it was a poor process on paper, and you computerised it, it's now a poor computerised process.'

You need to rework those processes and look at them in a new light so that you're not creating a bad process in a new environment.'

For Antelope Valley Hospital, it is prime time to embrace Lepper's approach to technological efficiency. The care centre is skyrocketing in growth. The ER that was built for 40,000 annual patient visits now handles up to 120,000 people. New technology like workstations on wheels enables the staff to be more mobile and, in a crunch, provide patient care where there is additional room. The same can be said for smartphones and tablets, which the staff now use to show x-rays and lab results to patients wherever they are set up.

Empowering the right employees with the right tech access requires both a thoughtful approach to security and a confident vision of what they may need next. Antelope Valley Hospital embraces both, doing annual security audits while keeping an eye on any inefficiencies technology can correct. Lepper is leading the charge.

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For Lepper, the ultimate goal is for technology to put every Antelope Valley Hospital patient at ease. 'I think it'd be very satisfying as a patient to be able to give your information once,' he says, 'and then know that it's dispersed to everybody that's taking care of you.'



Antelope Valley Hospital highlights

Antelope Valley Hospital, a 420-bed district hospital located in the city of Lancaster in northern Los Angeles County, has been serving the community for more than 60 years. The area's only full-service acute-care hospital, AVH provides a full array of medical/surgical services, paediatric treatment, NICU, mental health, cancer care and more. It is a Level II trauma centre.

- Provides care to more than **218,000 patients** each year.
- Receives over **120,000 Emergency Department** visits annually.
- Is the only **Level II Trauma Center** within 50 miles.
- Has **450 physicians** on staff, representing 66 different specialties.
- Serves as a major economic engine in the community with a workforce of **2,800 employees**.
- Relies on the time and talent of more than **550 volunteers**.
- Delivers more than **5,200 babies** a year.



