Saving time, saving lives

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The Service entered a new era when in summer 2006 the number of ambulance trusts in England was reduced from 29 to 12. We examine how one Trust has been using technology to help it meet the challenge.

South Central Ambulance Service's (SCAS') go-live launch of its Berkshire Emergency Operations Centre (EOC) control room in September 2009 was the second of three, and a milestone moment in its regional rollout of a single, integrated, virtual control room strategy enabled by IT partner Intergraph's 'I/CAD' system. When the third EOC goes live this year [2010] SCAS' state-of-the-art computer-aided dispatch (CAD) environment will allow the three control rooms in Otterbourne (Hampshire), Wokingham (Berkshire) and Bicester (Oxfordshire and Buckinghamshire) to dispatch the 'best and nearest' shared resources for every incident across its 4 million-population, 3,500 square-mile, 400,000+ emergency-calls-a-year region - regardless of location.

Within and across EOCs 1 and 2, this is already happening. Hampshire, in which almost 50% of SCAS calls are concentrated, had gone live earlier, in November 2008 and for emergency call taking the two centres now function, virtually, 'as one'.

"The Berkshire dispatchers had their live training in Hampshire and were volunteering for overtime shifts so that they could come and use the CAD during the pre-go-live period, which was really positive. They just wanted to get their hands on it" says Luci Stephens, SCAS' Assistant Director, EOC.

"Three centres working as one"
"Going forward, my vision for the EOCs are three centres working as one, so that from a patient's perspective it should not matter where you dial 999 from – no matter your location you should be able to get through to your ambulance service as quickly as possible" Luci Stephens says. "Thanks to our new regional CAD and telephony systems, that is now possible."

Stephens also has a vision for a central dispatching future in which "vehicle location will not hinder service: no matter where the patient dials 999 from, a resource will be dispatched to them by our EOC team using I/CAD".

SCAS has upgraded its mobile data units, allowing job details data and map-based information to be transferred from the CAD to ambulances on the move.

Other technology advances include I/CAD's new 'LV' Locate and Verify, flexible free-text search application, which Intergraph say is considerably more powerful than its predecessor. "It simplifies and speeds getting addresses and related information for key locations" comments SCAS Head of Planning (Operations) Rob Ellery. "It is a very quick and accurate search tool: and as each site works off the same database the system can pinpoint the right local location information for any call, anywhere. So LV also aids the dispatch process".

Rob Ellery also cites the 'Regional SSM' (systems status plan management) tool as another operations advance that has been enabled by smart technology. Developed by SCAS for the new regional ambulance environment with Intergraph, Regional SSM allows SCAS to be more efficient in the way it deploys ambulances and positions vehicles strategically in the field, notably for standby dispatch compliance (ambulance crews being in the right place at the right time). SCAS dispatchers can now 'plot' vehicles to optimise their position for fastest response from dynamic standby points, recommending vehicle movements to points that are not covered.

Measuring the operational impact
The I/CAD system also speeds call taking and dispatch by automatically logging a call before it is answered by control room staff - pinpointing its location as onscreen co-ordinates on the system's digital map, in readiness for call processing and dispatch.

The new environment has already had a measurable impact on operations, with EOC control room processing time cut by up to 15 seconds. It has also contributed to an improvement in SCAS' overall 999 'A8' LTI (immediately life threatening incidents) response times, in conjunction with other operational initiatives being implemented to improve services to patients. And the new CAD system has also been central to a major 'I/CAD is my CAD' SCAS internal change programme including the incentivised retraining of some 200 emergency control staff.

 "Within weeks the CAD improved our service to patients, other health professionals and our own operational staff. Our users like the system, which is important as this project is about both people and technology" says Rob Ellery, whose team has introduced training-completion and overtime incentives to motivate staff during the three-EOC rollout programme.

 "I/CAD provides us with a virtual EOC across the entire region" Ellery concludes. "It enables better, faster service with business resilience – if one system failed it would automatically switch to an alternative EOC. So far, we have not only been able to maintain our services to patients with the new system - we have measurably improved it, shortening "A8" response times and saving lives".