

# Call management cycle algorithm

The call management cycle algorithm is designed to act as a best-practice guide bringing together high-impact changes, both operational and control room based, that can bring about a real and sustained improvement in performance and patient care. These elements have been identified as 'holding' the highest impact against performance.



## Response time

## Time at scene to vehicle clear

Call connect, call answer	Call answer, call processing	Call answer, vehicle assign	Call assign, vehicle mobile	On scene	Time at scene to vehicle clear	Turnaround times
Display live performance data in the control room	Review telephony systems and update where necessary	Check computer aided dispatch (CAD) system for speed and functionality. Ensure that mapping software is the latest version	Consider implementing auto-dispatch procedures for community and co-responders, rapid response vehicles and ambulances	Make optimum use of CAD systems, mapping software, deployment plans and GPRS tracking	Minimise on-scene delays	Install an inbound patient CAD screen to accurately record patient handover times
Introduce Enhanced Information Service for Emergency Calls and Automatic Location Service for Emergency Calls	Measure live performance	Ensure that GPS tracking works correctly and provides consistent updates to CAD system	Eliminate the use of telephone activation at station level and activate via mobile data radio systems	Monitor live performance information, perhaps through a dashboard available electronically to all key managers from a control centre with automatic updates	Consider the use of new technology to automatically acknowledge crew arrival on scene	Install auto-reporting to automatically time-stamp the CAD record when the vehicle arrives at the healthcare facility
Introduce Automatic Call Distribution (ACD) telephony	Consider which AMPDS version is being used	Have an interface in place that loads up the call location directly into the satellite navigation system from the mobile data transfer (MDT) to the vehicle	Ensure synchronisation of time source on the CAD system, MDTs and mobile data routers	Carry out regular demand analysis reviews to ensure that resources in the control room and operations match the current demand plan	Install a CAD alarm to notify dispatchers when the on-scene time exceeds 15 minutes	Ensure that vehicle staff notify the control room of any delays over a locally agreed threshold
Display direct from the telephone switch 999 call pick-up times	Review time to get address	Check time sources on CAD systems, MDTs and mobile data routers for synchronisation	Monitor and review MDT failures	Hold frequent meetings between trust performance leads and key managers involved in performance delivery. These meetings should be based upon information received through the performance dashboard	Develop rapid handover and stand-down arrangements between rapid response vehicles and double-crewed ambulances at the scene of the incident	Deploy operational managers to the healthcare facility based on set thresholds, e.g. total number of minutes at hospital (which could be 1 ambulance at hospital for 120 minutes, or 10 ambulances at hospital for 12 minutes each)
Regularly review demand to ensure that resources match the demand profile and the distribution of calls received. The review should also apply to control room and operations staff	Review time to get chief complaint	Train staff in full CAD functionality	Introduce an alarm in the CAD system to notify dispatchers of delays above 15 seconds in vehicles becoming mobile	Ensure excellent staff involvement and communication around the design of rosters, demand analysis and any required workforce re-engineering	Activate an operational officer to any incident where it is anticipated that the on-scene time will exceed 20 minutes	Ensure regular liaison between the ambulance and the acute trust around A&E delays
Regularly review the call-taking process in the control room to ensure that calls are answered within the target time	Review total call length time (average)	Consider which electronic dispatch version – e.g. ELAN 1 or 2 – is used	Have an exception-reporting process in place for all delays above 30 seconds, and forward those with operational implications to a local sector manager for investigation and follow-up action	Use reporting tool to understand performance bottlenecks	Identify on the CAD record when it is known that the incident will have a longer on-scene time than 15 minutes, and consider deploying an operational manager to manage the incident	
Agree key performance targets for call takers, dispatchers and supervisors in the control room	Review percentage of calls converted into A, B and C to spot any individual trends	Ensure 24/7 standby planning compliance	From the demand analysis review, update the dynamic deployment plan (which should be CAD-based) to reflect any changes to dispersion and distribution of activity			
Monitor and review (monthly) the performance of individual teams within the control room	Measure average call 'wrap-up' times (after-call work)	From the demand analysis review, update the dynamic deployment plan (which should be CAD-based) to reflect any changes to dispersion and distribution of activity	Have an agreed escalation plan in place and maintain staffing levels accordingly			
Separate call handling functionality and separate supervisor call handling		Analyse data on calls that fall outside the target response times and determine cause of delays associated with vehicle assignment to incident	Use reporting tool to understand performance bottlenecks			
		Use reporting tool to understand performance bottlenecks	Investigate frequent patterns of mobilisation delay for root cause (e.g. technological failures or individual performance)			
		Have an agreed escalation plan in place and maintain staffing levels accordingly	Review working practice on station so vehicles are immediately ready to mobilise, e.g. place phone near or en route to the exit			
		Continue to dispatch to less urgent calls when vehicles available, and divert onto higher priority calls if necessary	Ensure that the control supervisor is alerted by the dispatcher to any mobilisation delays that exceed the target time			
			Investigate frequent patterns of mobilisation delay for root cause (e.g. technological failures or individual performance)			
			Review working practice on station so vehicles are immediately ready to mobilise, e.g. place phone near or en route to the exit			
			Use reporting tool to understand performance bottlenecks			