In this study we aim to increase our understanding of leadership in anaesthesia teams by investigating the relationship between substitutes for leadership, leadership behaviour, and team performance in situations with varying levels of routine and standardization. The present study relied on video recordings of 12 anaesthesia teams in a simulated setting with the occurrence of a nonroutine event. Clinical team performance was measured by the speed of adequate team reaction to this event. The leadership behaviours observed were coded either as content oriented (e.g., information transmission) or structuring (e.g., assigning tasks). Results showed that leadership behaviour changed depending upon the level of routine of a situation, the degree of standardization, and, to some extent, on the experience of team members. Leadership tends to be positively related to team performance during nonroutine and low standardized situations but negatively related to team performance in routine and highly standardized situations. Furthermore, leadership is only slightly related to team member experience. This study improves our understanding of influences of substitutes for leadership on successful leadership behaviour in anaesthesia teams. The findings also lead to suggestions for both further research and the enhancement of team leadership in critical care.