Do root cause analyses have a role in quality improvement? How best to approach them?

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BACKGROUND

Root cause analysis are important and common in healthcare organisations, however 'more education and training' is often the default outcome or action plan from most investigations

A human factors approach that enables genuine system or operational problems to be adequately addressed is desirable

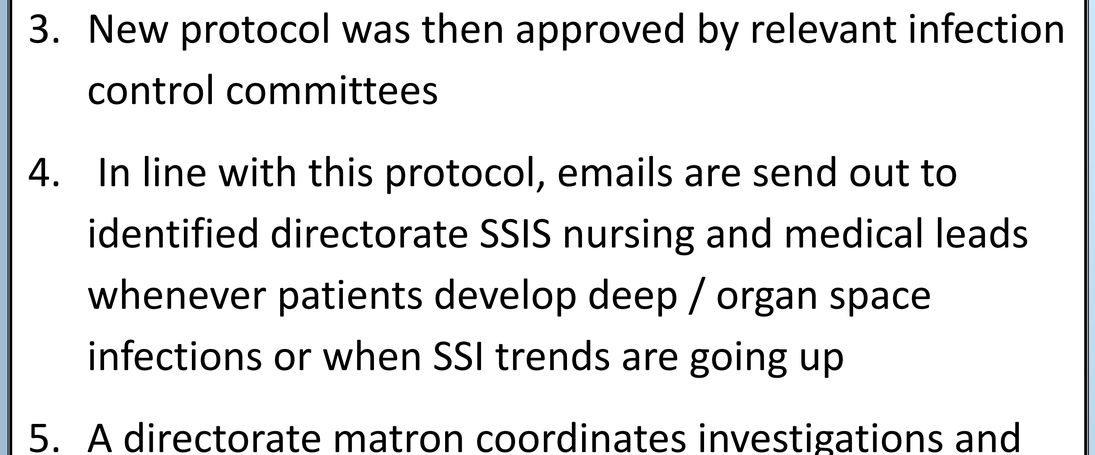
PURPOSE

1. Establish an effective surgical site infection (SSI) detailed investigation protocol, which enabled us to identify potential surgical pathway issues
2. Measure compliance with evidence based SSI prevention recommendations from the National Institute of Health & Care Excellence (NICE)

METHODS

1. The infection control team drafted an SSI detailed investigation protocol in 2014 to enable systematic approach to reviewing practice in line with evidence based recommendations
2. Input was sought from the Trust SSI surveillance committee and surgical directorate leads
3. New protocol was then approved by relevant infection control committees
4. In line with this protocol, emails are send out to identified directorate SSIS nursing and medical leads whenever patients develop deep / organ space infections or when SSI trends are going up
5. A directorate matron coordinates investigations and any meetings
6. A directorate SSIS lead is expected to share and discuss outcomes from investigations at relevant clinical governance or morbidity and mortality meetings

SSI detailed investigation summary



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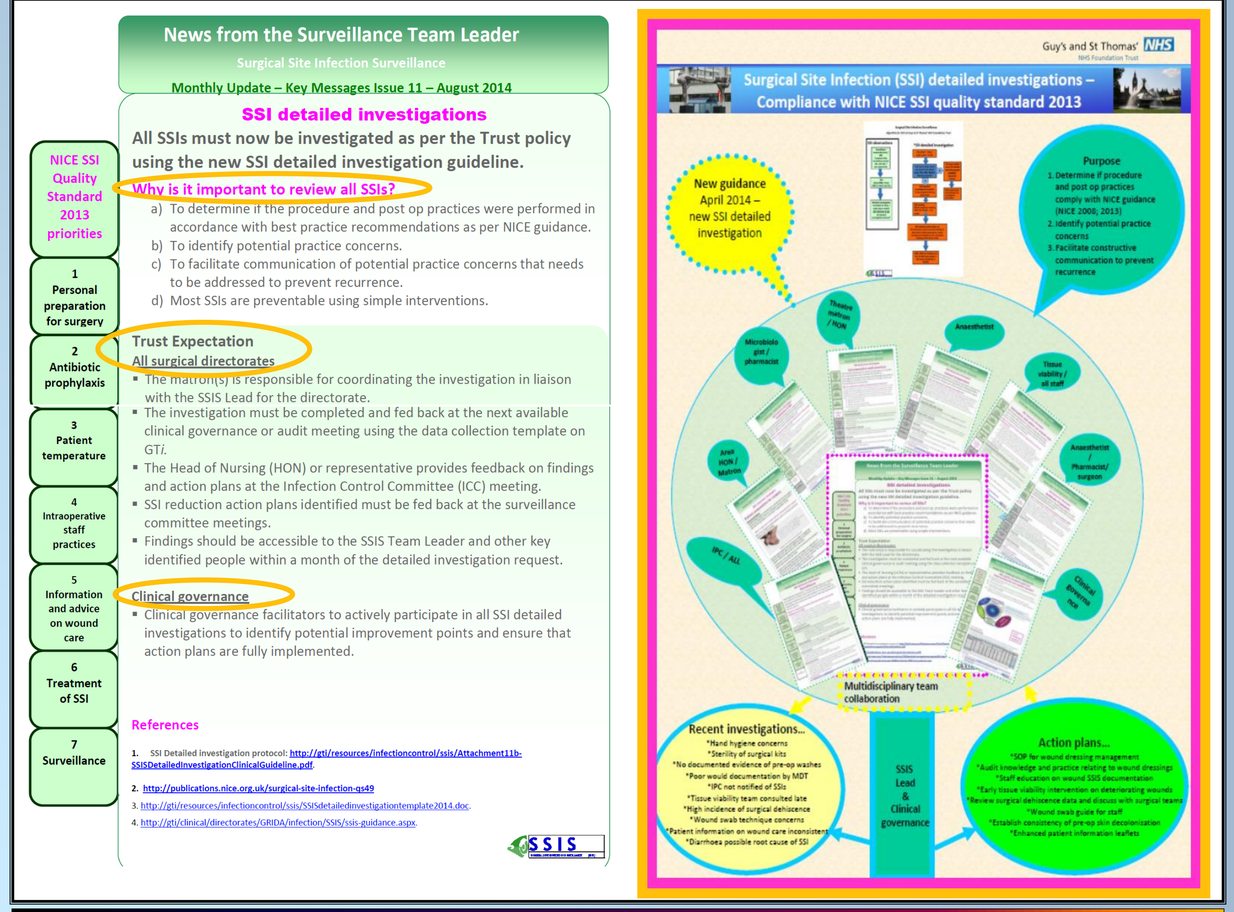
Promoting SSI detailed investigation protocol



RESULTS

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018 YTD
Total procedures	1023	1079	1136	1098	1074	1073	1177	1191	1235	867
Total SSIs	55	41	26	28	25	27	13	14	14	11
% SSI	5.4	3.8	2.3	2.6	2.3	2.3	1.1	1.2	1.3	1.3

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018 YTD
Total procedures	83	400	467	516	666	675	841	697	706	474
Total SSIs	12	35	23	19	15	18	13	11	21	11
% SSI	14.5	8.8	4.9	3.7	2.3	2.7	1.5	1.6	3	2.3

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018 YTD
Total procedures	347	387	427	448	464	438	435	438	431	321
Total SSIs	42	23	18	14	12	17	13	3	13	7
% SSI	12.1	5.9	4.2	3.1	2.6	3.9	3	0.7	3	2.2

CONCLUSIONS

1. The SSI detailed investigation protocol is now fully embedded within clinical governance structures
2. Outcomes of SSI investigations are used in quality improvement work. Areas that comply with this protocol have demonstrated sustained reductions in SSI incidence
3. Ongoing encouragement & support is provided for some directorates
4. An SSI detailed investigation log is now circulated regularly

★Root cause analysis play an important role in quality improvement. From our experience, they are more productive when clinical staff take ownership and are involved in the development of relevant protocols.

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