

Increasing Staff Compliance with Lone Worker Safety Devices

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Short Report

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Abstract

BACKGROUND & AIM

Staff working for the local community respiratory service were provided with lone worker security badges. Compliance across the service varied with some staff members using in line with the local policy, and others not, however overall compliance was reduced when compared to staff from an equivalent (control) community service. The purpose of this study was to evaluate a method to improve usage of these devices.

METHODS

A competition was devised whereby staff were randomised into one of four teams, and a scoring system implemented which averaged the number of recorded badge activations. A mystery prize for the end of the "season" was also promised for the winning "team", and monthly updates were provided to all participants.

Data on device activation and usage was collected monthly by the author for analysis.

RESULTS

Average device use per staff member comparing respiratory and control groups. Mean activations per month for the respiratory group exceeded the control group during the competition. Comparing with pre competition use, device activation's per month almost doubled during the competition for the respiratory service.

CONCLUSIONS

A small amount of admin (And an active imagination) were required, but resulted in a marked improvement in device compliance across the service.

Background

A comprehensive mapping survey by NHS Protect (Now NHS Counter Fraud and Security Management Service) in 2015 [1] found large disparities in lone worker protection across the country, and that the main difficulty in current systems revolved around poor usage.

Employers have a responsibility to ensure their lone working staff are put under no more risk than any other staff [2] and professional bodies [3][4] & NHS institutions [5] have produced many variations on advice which include the provision of lone worker security devices.

Staff working for the local community respiratory service were provided with lone worker security badges, which are remotely monitored and can be activated if a staff member is or feels threatened.

Individual usage data is sent to the author monthly to allow for compliance monitoring, which would serve as the primary dataset for this study.

Device compliance across the respiratory service varied, with some staff members using in line with the local policy (which requires activation of the device on every home visit / lone working situation), whilst other staff were not compliant, even after education, and the potential for disciplinary action.

When lone worker device use was compared to an equivalent community cardiovascular serviceworking across the same geographical area, overall compliance was reduced. It was decided that a different approach was needed to address this shortfall.

Methods

A competition was devised for the respiratory service, whereby staff were randomised by the author into one of four teams, and a scoring system implemented which averaged the number of recorded badge activations per staff member per month. Participants were all community respiratory staff, from nursing, physiotherapy and exercise physiology staff professions.

The competition was announced at the monthly team meeting (to start in May 2018, and run until December 2018), and via email to all staff members. A monthly “newsletter” was then circulated to all participants to update them of their teams progress, the number of team members with below acceptable use (Acceptable use classified as at least one activation per working shift), however individual low users were not identified.

Team captains were appointed, with the role of encouraging their team. A mystery prize for the end of the “season” was also promised for the winning “team”.

Activation and use were recorded by the author from monthly data provided by the lone worker device monitoring company, which identifies individuals and their compliance.

Results

Average device use per staff member comparing respiratory and non-respiratory (control) [Table 1]

Visualisation [Table 2] demonstrates a clear increase in respiratory team use on commencement of the competition, surpassing the activity of the control team. Statistical analysis [Table 3] indicates an 80% improvement in usage for the period of the competition (May – December 2018) when compared to use for the same period in 2017.

Table 1

Average device use per staff member comparing respiratory and non-respiratory (control)

Month	Respiratory Staff with devices	Respiratory Activations	Respiratory Mean Activations / Month	Non-Respiratory Staff with devices	Non-Respiratory Activations	Non-Respiratory Mean Activations / Month
Jan 2017	26	308	11.85	20	343	17.15
Feb 2017	27	365	13.52	21	323	15.38
Mar 2017	27	532	19.70	24	570	23.75
Apr 2017	27	338	12.52	24	528	22.00
May 2017	26	305	11.73	23	649	28.22
Jun 2017	25	320	12.80	24	627	26.13
Jul 2017	27	340	12.59	18	564	31.33
Aug 2017	27	329	13.16	20	516	25.80
Sep 2017	24	369	15.38	18	511	28.39
Oct 2017	26	586	22.54	19	659	34.68
Nov 2017	26	649	24.96	19	601	31.63
Dec 2017	25	442	17.68	18	413	22.94
Jan 2018	29	513	17.69	18	504	28.00
Feb 2018	28	614	21.93	19	456	24.00
Mar 2018	29	534	18.41	19	507	26.68
Apr 2018	26	601	23.12	20	396	19.80
May 2018	26	846	32.54	19	533	28.05

Jun 2018	23	680	29.57	20	597	29.85
Jul 2018	23	755	32.83	20	526	26.30
Aug 2018	23	630	27.39	20	482	24.10
Sep 2018	24	577	24.04	19	424	22.32
Oct 2018	25	796	31.84	19	553	29.11
Nov 2018	25	786	31.44	18	455	25.28
Dec 2018	25	606	24.24	16	252	15.75

Table 2 - Comparison of respiratory team use pre / post competition

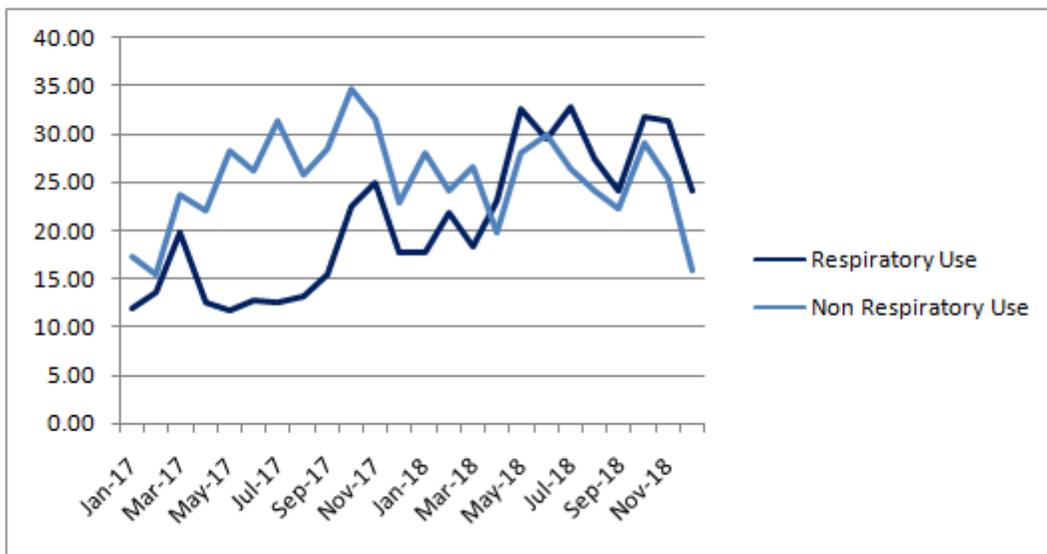


Table 3
Statistical analysis

Mean respiratory team device activations per month
Pre competition (Apr-Dec 17) = 15.9 / person
Post competition (Apr-Dec 18) = 28.6 / person (80% increase)
ANOVA test, F=36.95, F crit = 4.93 p<0.05

INTERPRETATION OF RESULTS

The addition of a competitive factor into using the devices, combined with a smaller “team” approach appears to have resulted in an increase in use across the respiratory service as a whole. There was however still a small cohort of staff who used their devices less than the protocol required.

Conclusion

A small amount of admin (And an active imagination) were required, but resulted in a marked improvement in device compliance across the service. The team approach did still allow some users to fall short of expected use, and a revised competition will be designed for the following year to see if this can be addressed.

Declarations

Ethical Approval: Not applicable

Consent for publication:Not applicable

Availability of data and materials:The data that support the findings of this study are available from the corresponding author upon reasonable request

Competing Interests: None

Funding: None

Authors' contributions: DB analysed and interpreted all data

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