GLOBAL AIR TRAINING

Safer Systems & Processes

Root Cause Analysis using a Human Factors Approach

A Training Programme Developed from Lessons Learned in Commercial Aviation

May 2004

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Purpose

The purpose of the Global Air Training Programme – Safer Systems & Processes - is to assist the Trust in the in depth examination of their systems and processes used to support patient safety reporting, analysing and learning systems. The specific aim is to identify areas for improvement and development.

The Programme is centred on concepts and principles developed in commercial aviation and used in aircrew training and incident investigation. The application to healthcare is through the use of case studies, scenarios and simulation using data derived from patient safety incidents that have occurred within the health care services.

Role of Global Air Training

Global Air Training (GAT) will guide participants, through a combination of facilitated learning activities, to undertake root cause analysis and produce individual and group action plans to assist with the transfer of learning into their organisation. The timing and format of these learning activities will be agreed in outline at a planning meeting.

GAT will

- resource the Programme facilitation to achieve the Programme objectives.
- measure the success of the Programme in the achievement of its objectives. (See Appendix one - the success criteria will be agreed between GAT and the Trust.)
- facilitate the production of a joint Programme Evaluation Report.

GAT staff are carefully selected and screened to ensure the highest standard in programme delivery. GAT staff are required to comply with the company code of conduct and sign a confidentiality agreement that continues after they have finished their work with the Trust. They will also be required to declare any conflict of interests. **The code of conduct and confidentiality agreement are available on request.**

Role of the Trust

The Trust will provide adequate resources to achieve the Programme objectives as described below. Specifically the Trust will provide

- Senior management sponsorship and support.
- A Steering Group to oversee the Trust's activities and review the progress of the Programme with the GAT Programme Lead.
- A Named Lead Person who is able to manage the Programme administration on behalf of the Trust.
- Cohort(s) of staff able to contribute to the identification and analysis of the Trust's systems & processes
- Communication and briefing activity to ensure understanding of the Programme.
- Venues and facilities to host the activities. (See Appendix two)

Role of Clinical & Social Care Governance Support Team

The Clinical & Social Care Governance Support Team has commissioned the Programme and are sponsors through the Trust of the training and education services provided by Global Air Training.

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Clinical & Social Care Governance Support Team representative(s) will attend meetings and training sessions as necessary.

The Clinical & Social Care Governance Support Team may wish to share the learning outcomes of the Programme with other health care organisations.

Sign-off of Activities

As the Programme progresses the GAT deliverables for each learning activity will be defined by GAT and the Trust. Following each activity GAT will submit to the Trust a statement for signature agreeing that the deliverables have been met.

Activity 1 – Programme Planning Meeting

Objectives

To establish the framework to deliver the Safer Systems and Processes Programme

Agenda

- Agree Programme purpose
- Agree engagement terms of reference
- Confirm Steering Group membership
- Review programme and planned schedule of activities
- Agree reviewing mechanisms and schedule
- Consider measurements of success
- Consider communications strategy
- Agree 'Ground Rules'
- Specify facilities and learning aids
- Obtain Contact details for Trust Teams
- A.O.B

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Pre programme Workshop/Seminar

It is recommended that a pre-programme workshop or seminar is offered for senior managers and Trust board members to raise awareness and ensure top-level commitment to the programme.

This may be arranged to take place within the regular meeting schedule and include other key stakeholders in the patient safety agenda.

Senior managers and Trust board members should be represented at the training sessions both as a course participants and contributors.

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The Safer Systems and Processes Programme and Planned Schedule of Activities

The Programme Planning table below should be reviewed and agreed at the Planning Meeting.

Activity	By	Description/Deliverables	GAT Input	Duration	Activity Date
1	GAT/Trust	**Pre programme Seminar for key Trust personnel**	1 person	1 day	TBA
2	GAT/Steering Group	**Planning Meeting - 1** • Agree Programme purpose • Agree engagement terms of reference • Confirm Steering Group membership • Review programme and planned schedule of activities • Agree reviewing mechanisms and schedule • Consider measurements of success • Consider communications strategy • Agree 'Ground Rules' • Specify facilities and learning aids • Obtain Contact details for Trust Teams	1 person	1 day	TBA
3	GAT/Steering Group	**Planning Meeting - 2** Deliverables: • Team members have an understanding of the Programme and their role • Programme timetable • Programme syllabus • Identify staff to attend learning activities • Communications plan • Confirm Programme monitoring methods	1 person	1 day	TBA

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Activity	By	Description/Deliverables	GAT Input	Duration	Activity Date
4	GAT	**Site visit and briefing session for programme participants**	1 person	1 day	TBA
5	Trust Lead Person, Comms/Media Officer	Communicating the strategic framework of the Programme across the Trust		Ongoing throughout the programme	
6	GAT	**Facilitated Learning Activity - Safer Systems and Processes** Deliverables: • See Syllabus (Appendix three)	1 person	2days	TBA
7	GAT/Trust	**Post Programme evaluation** Deliverables: • Shared learning from the Programme – cpd/cme processes • Reflection upon lessons learnt and application to practice • Assessment of the Programme • Recommendations for remedial actions • Agree implementation and integration strategy	1 person	1 day	TBA
8	GAT/Trust	**Report** Deliverables: • Key findings of Programme – the approach, its applicability, the next steps • Presentation of final report to the Trust Chair and Chief Executive	1 person	1 day	TBA

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Appendix One

Programme Evaluation Methods

Objective \ Measure	Content of Feedback Sheet	Case Study Review	Action Planning
Meeting the expectations of the participants in the training sessions	Evaluation of training sessions, facilities, teaching materials and techniques		
Use of the error chain approach to incident analysis		Formative assessment of the outcomes of a case study exercise,	
The production of action plans that address the transfer of learning in to practice and meet the needs of the organisation			Group action plans produced by the teams during the training sessions specifying resource requirements, role responsibilities and timescales
Review the Programme Outcomes	A report compiled by the GAT Team will summarise the effectiveness of all formal training through collation and analysis of Feedback Sheets, Case Study Review and Summative Action Plans.		

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Appendix Two

Specification for Facilities and Learning Aids

The following facilities and learning aids will be required during the Programme.

Provided by	Item	Notes
Trust	Suitably sized training room	Not lecture theatre. Location details/site map
Trust	Tables & chairs	Boardroom or horseshoe layout
Trust	Whiteboard	inc. marker pens & eraser
Trust	Flip chart	inc. paper & marker pens
Trust	Projector screen	
Trust	Multiplug/extension lead	If necessary
Trust	Tea & coffee facilities	Location details
Trust	Lunch facilities	Location details
Trust	Toilet facilities	Location details
Trust	Admin & emergency info	Smoking areas (if available) Sound of emergency alarms Evacuation route from training room Location of assembly point
GAT/Trust	Laptop	For PowerPoint presentation
GAT/Trust	LCD projector	For PowerPoint presentation
GAT	PowerPoint presentation	Plus spare back up disc
GAT	Videos	Air Florida Beyond Blame
GAT/Trust	Handouts	GAT to produce master copies
GAT	Stationery accessories	Stationery box

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Appendix Three

Safer Systems and Processes - Root Cause Analysis using a Human Factors Approach

2 Day Course Programme

Introduction

Patient care, like other technically complex and high risk services, is an interdependent process carried out by teams of individuals with advanced technical training who have varying roles and decision-making responsibilities. While technical training assures proficiency at specific tasks, it does not address the potential for error deriving from communication and decision making in dynamic environments.

In response to these challenges, the aviation industry has developed training focussed on effective team management known as Crew Resource Management (CRM). The concepts originated from NASA research that examined the role that human error plays in aircraft accidents. CRM training considers the role of human factors in high-stress, high-risk environments. During the past decade lessons from aviation's approach have been applied to the health care industry and its approaches to patient safety.

NHS organisations should have in place a holistic and integrated system covering management, reporting, analysis and learning from all adverse incidents involving patients, staff and others. The challenge is to change cultures and move towards a just, honest and open approach to incident reporting so that staff are involved and secure in sharing their experiences.

Health and Social Care organisations and staff involved in service delivery should report when things go seriously wrong. However, an effective, systematic approach to risk assessment and management requires a proactive approach to identify what could go wrong and to capture and learn from 'Near Miss' events.

It is important for organisations and their staff to establish the underlying causes of adverse incidents, errors and near misses. Unless the causes of an adverse patient experience are properly understood lessons will not be learned and required changes will not be made to reduce the risk of harm to future patients.

This programme sets out the key requirements for Health and Social Care organisations to manage, report, analyse and LEARN from ALL adverse patient incidents.

Root cause analysis provides a means of getting to the bottom of adverse incidents and seeking solutions to prevent or reduce the likelihood of reoccurrence.

This programme will provide participants with the skills and expertise to effectively apply the principles and learning from error management techniques to practice. A workshop approach is used to allow the participants to share information and experience.

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Programme Content

The two day facilitated learning sessions will cover:

- How to improve communication and interpersonal relationships within teams
- How to support staff through the investigation process following an adverse patient safety incident
- How to address communication and public relations issues
- How to develop a robust risk assessment framework for patient safety incidents
- How to engage staff in error management
- How to undertake a root cause analysis using a human factors approach
- How to formulate resulting action plans
- How to identify the lessons learnt and select appropriate methods for dissemination
- How to address cultural change issues

All course participants will receive relevant handouts, including:

- Examples of good practice
- Exemplar proformas for adaptation and use in own work place
- A bibliography of recommended further reading, a list of useful websites and other resources

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Day One

09:15	*Registration and Coffee*
09:30	**Welcome and Introduction** Domestic arrangements Syllabus and Programme objectives
09:45	**The Agenda for Patient Safety** Review of national reports and agencies Statistical evidence The case for change The role of the NPSA in England
10:15	**Lessons learnt in Aviation** Air safety developments Principles, approaches & concepts
10:45	**SHEL – Human Factors Model**
11:00	*Morning refreshments*
11:15	**Human performance and limitations** Factors affecting human performance
11:45	**Communication** Dealing with the media and public relations Skills & strategies to improve communication Keeping staff informed
12:15	**Classifying Patient Safety Incidents** Agreeing definitions and classifications Local policies and procedures
12:30	*Lunch*
13:15	**Root Cause Analysis** Definitions Tools and models
15:00	*Afternoon refreshments*
15:15	**Health & Social Care Case-study –** Gathering the evidence
17:00	*Close*

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Day Two

09:15	*Coffee and welcome*
09:30	**Review of Day One & Introduction to Day Two**
09:45	**Health & Social Care Case-study continued** Reviewing the evidence
10:30	**Root Cause Analysis** Identifying causal factors Mapping exercise
11:15	*Morning refreshments*
11:30	**Feedback from Root Cause Analysis exercise**
12:00	**The causal report** Agreeing the causal factors Analysis of causal factors
12:45	*Lunch*
13:30	**Action Planning** Agreeing action with roles and responsibilities
14:15	**Personal Lessons learned/transfer to the workplace** Individual action planning
15:00	*Afternoon refreshments*
15:15	**Changing the culture, systems & processes** Identifying methods to share experience and information Opportunities for integration Improving teamwork and interprofessional relationships
16:00	**Next steps** Disseminating learning Tracking progress
16:30	**Programme review**
17:00	*Close*

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