

Turning stories into numbers: Gathering data to inform and transform health and social care systems

Lead Physiotherapists: Sue Griffith, Vic Ellis, Amanda Rutter, Jason Ellis

Hywel Dda University Health Board

This Bevan Exemplar project developed a common language and scoring system to aid decision making and provide the most effective health and care intervention for patients.

Background

Healthcare in Wales is a complex system, incorporating social care, housing, and the community voluntary sector. Conventional means of measurement don't assist in understanding and navigating the current system as a whole. A different way of measuring the complexity is required. This needs to be based around the human story so that patterns and themes can be explored.

ANGEL (Activities, Needs, Goals, Escalation, Location) was developed through '1000 Lives Improvement' and is underpinned by complexity theory. It is an abstract summary of an individual's needs, capturing individual presentations as data. The ANGEL scoring system starts with a measure of an individual's need. Qualitative stories, as told by patients, become Quantitative Data which can be used to track, evaluate and inform decisions. Then, when data from multiple patients is collected, several layers of data enable patterns to emerge and trends to be analysed.

| ANGEL Score | Activities picture of typical life, activities and social relationships | Needs scale and scope of existing needs and level of support | Goals possible longer term changes and personalised goals | Escalation type of care plan required to align needs and goals | Location a choice of where and when the care will be delivered |
|---------------------|--|---|--|---|---|
| 5 Save Life | Isolated and vulnerable to immediate harm | Constant professional supervision | Inevitable rapid decline or near end of life | Imminent crisis or failure to progress care | Specialist bed or unusual predicament |
| 4 Serve Needs | Limited social activity or contact beyond ADLs | At least daily professional supervision | Unstable or significant long term decline | Rapid referral or access to a special service | Hospital or other bed based care |
| 3 Support Living | Social support or activities when needed | Scheduled intervention & observation | Some decline but stable over the long term | MDT led care assessment & intervention | Intermediate bed or supported living scheme |
| 2 Share Care | Regular social activities with informal help | Progressing an agreed plan or review process | Predictably close to or as good as before | Planned assessment & intervention | Domestic home with additional services |
| 1 Show How | Socially active range of strong relationships | Self caring minimal support & intervention | Typically better or more stable than before | Routine task oriented day to day support | @complexwales Domestic home with minimal support |

Figure 1

A chart titled 'Angel Score'. The chart has five columns and five rows. The columns are:

- Activities – picture of typical life, activities, and social relationships
- Needs – scale and scope of existing needs and level of support
- Goals – possible longer-term change and personalised goals
- Escalation – type of care plan required to align needs and goals
- Location – a choice where and when care will be delivered

The rows are:

- 5 – Save life
- 4- Serve needs
- 3 - support living

- 2 - share care
- 1- show how

The values within the graph are:

Activities:

- Save life: Isolated and vulnerable to immediate harm
- Serve needs: Limited social activity or contact beyond ADLS
- Support living: Social support or activities when needed
- Share care: Regular social activities with informal help
- Show how: Socially active range of strong relationships

Needs:

- Save life: Constant professional supervision
- Serve needs: At least daily professional supervision
- Support living: Scheduled intervention and observation
- Share care: Progressing an agreed plan or review process
- Show how: Self caring minimal support and intervention

Goals

- Save life: Inevitable rapid decline or near end of life
- Serve needs: Unstable significant long-term decline
- Support living: Some decline but stable over the long term
- Share care: Predictably close to or as good as before
- Show how: Typically, better or more stable than before

Escalation

- Save life: Imminent crisis or failure to progress care
- Serve needs: Rapid referral or access to a special service
- Support living: MDT led care assessment and intervention
- Share care: Planned assessment and intervention
- Show how: Routine task-oriented day to day support

Location

- Save life: Specialist bed or unusual predicament
- Serve needs: Hospital or other bed-based care

- Support living: Intermediate bed or supported living scheme
- Share care: Domestic home with additional services
- Show how: Domestic home with minimal support

End of description.

There are five pieces of information, presented as columns, which give a summary of an individual's needs and situation at that moment in time. For each of the five columns, there are five levels used to describe the severity and urgency of the person's situation. The quantitative data collected is scalable to whole systems and populations. With several data items, numerous opportunities emerge from the patterns and intelligence. Physiotherapists work across the whole system of health and social care services, combining knowledge and skills of physical, medical, social and psychological aspects of care, to deliver Public health prevention, self-management, rehabilitation, acute episodes and crisis management. Physiotherapists are an ideal group of professionals to see complex problems and to strive towards possible solutions.

Aims

This project wanted to explore whether a strategy could be used in health and social care in Wales to reduce needs and spend, and use resources in line with the principles of Prudent Healthcare. It examined the use of the standardised scoring template, ANGEL, as a common language across all services, to capture stories in real time.

The project aimed to equip professionals with the knowledge and skills to use ANGEL to capture patient stories and input into the system. The aim was to 'drill down' on the data in order to identify, for example, delayed discharges and show which part of the system could be deployed and where in a more timely way to speed up discharges.

The project wanted to use ANGEL in action. Wherever there was a Physiotherapist from the project team, across numerous

settings, they collected ANGEL scores from patients and engaged other members of the team, where possible.

“The Bevan Commission created a space for innovation without criticism or judgement, but the ability to influence and transform is not balanced in the current system.”

Sue Griffith, Vic Ellis, Amanda Rutter and Jason Ellis

Challenges

Key challenges included:

- Balancing time between clinical practice and undertaking innovation.
- The need for a discussion at national level to show the potential of ANGEL as the basis for whole systems transformation across Wales.
- As Sense-making is the ability to make sense of a situation in context, it is a skill based on a combination of expertise and intuition and is not as widespread as might be assumed in clinical practice. There is a need for it to be recognised as an emerging skill-set and to create specific ‘Sense-maker’ clinical roles in the system.
- Learning from the ANGEL data in an emergent way, will offer greater intelligence to shift the system. However, emergent learning can be uncomfortable as it is entirely different to the traditional approaches of the health service.
- The project requires big-picture thinking and the ability to be fully immersed in the project to be able to see its’ potential.

Outcomes

- 24 Physiotherapy staff members were trained in the use of the ANGEL scoring system.
- Over 4500 data items were collected in this time.
- Multiple data entries for each patient enabled data to be layered and patterns in the data to be analysed.
- Colleagues working in the social care system were able to look at ways in which ANGEL could be used to improve safe and effective discharges from hospitals into the community.

- The team worked with acute hospital ward nurses to collect ANGEL scores every day, to gather data which was able to help reduce length of stay, form part of discharge plans and inform handover.
- Met with data analysts who could see how this data could be used to transform the health and social care system – working with the team to put into practice.
- Uncovering the potential to use resources across the whole system more efficiently, unlocking these from individual teams, services, buildings and budgets.
- Standardising how services assess and communicate need in the context of a person's life.
- Using predictive modelling to recognise which patients are approaching crisis and deploying effective resources to turn that around.
- Improved health outcomes for patients and resource efficiency for the NHS.

Next steps

- To progress and support staff to talk to service users in hospital and input family stories on the system which will automatically track scores.
- It is hoped that this project will scale-up to a Wales-wide level, and investment will be made in the appropriate IT support to enable more health and social care professionals to use and access the scoring system in real-time.