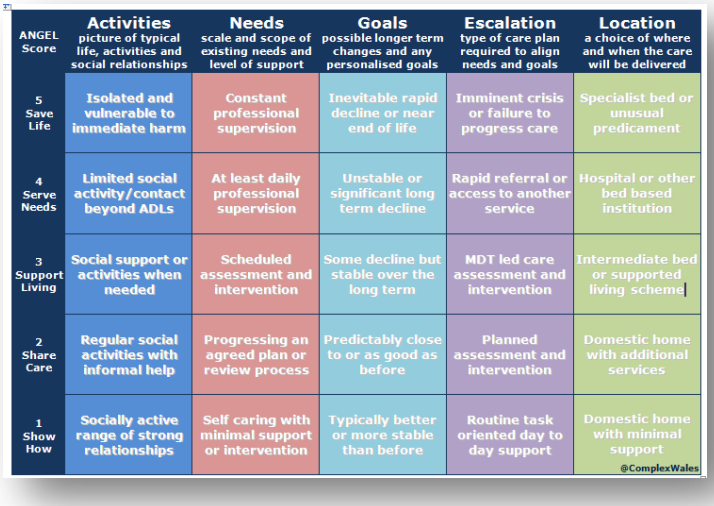
ANGEL Taxonomy

a cognitive model for assessment, decision making and planning in complex care



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 any 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/contact beyond ADLs	At least daily professional supervision	Unstable or significant long term decline	Rapid referral or access to another service	Hospital or other bed based institution
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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 and intervention	Domestic home with additional services
1 Show How	Socially active range of strong relationships	Self caring with minimal support or intervention	Typically better or more stable than before	Routine task oriented day to day support	Domestic home with minimal support

Technical Briefing April 2012

(A bit boring but covers all the bases)

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ANGEL Taxonomy

Background

In September 2010 the Continuing NHS Healthcare National Programme for Wales completed its seminal publication the '10 High Impact Changes for Complex Care'. This document sets out the rationale and potential impact of aligning ten interdependent improvements to systems and practices that contribute to complex care:

HIC 01: Avoid disruption to the usual care setting
HIC 02: Identify complex needs as early as possible
HIC 03: Agreed triggers and timely assessment
HIC 04: Effective multidisciplinary working
HIC 05: Proactive discharge planning
HIC 06: Rapid systems of escalation
HIC 07: Responsive long term care
HIC 08: Focus on the data for complex care
HIC 09: Integrated services & effective partnerships
HIC 10: A workforce designed to serve complex needs

The 10HICs are aimed at providing people who live with complex needs, every opportunity to live better and for longer in their chosen community. Therefore, tangible outcomes for the person extend beyond direct physical health improvement, to greater psychological and emotional wellbeing and improved social and environmental living conditions.

Follow up investigations were undertaken to explore the implementation and measurement of the 10HICs, which extend from simple process through to whole-system impact. At the outset when investigating HIC1, it became apparent that organisations did not systematically monitor where people ended up following an episode of care. On more detailed examination it was apparent that for the NHS alone, the national dataset to identify 'location on discharge' was almost useless. On moving to research HIC2 a similar situation was found. Recognition of complex needs was similarly subject to an extraordinary range of competing interpretations, criteria and innumerable scales with which to measure a person's condition and situation.

To assist in the research and development a Community of Practice was established called the Complex Care Forum. A call went out through members to submit any documentation, tools or techniques that practitioners used to assess people, plan care and support decision making. Within two weeks 130 different documents were submitted each with different structures, levels of granularity and a plethora of scales for enumerating the person being assessed.

However, this inherent organisational chaos contradicts the simple fact that real people with or without complex needs, are receiving the right care from the right people and operational teams are able to make valuable and accurate shared decisions every day. The gap between system design and effective practice initiated a programme of engagement with practitioners to gather tacit knowledge and experience from the teams delivering complex care on a day to day basis. Through a series structured inquiries and workshops, different and diverse groups of practitioners were asked to distil out of the plethora of possibilities, the salient factors necessary to support reliable decision making. The outputs from these events iterated over time, to describe five factors or themes of information that influence decision making:

- A picture of the person's typical life (their 'normal' **activities**)
- A list of problems and impacts on their life (type, level and effect of **needs**)
- A judgement of what could change over time (personalised **goals**)
- A plan of how to align the needs and the goals (the work or **escalation** of care)
- A choice over where and when the work is done (timing and **location**)

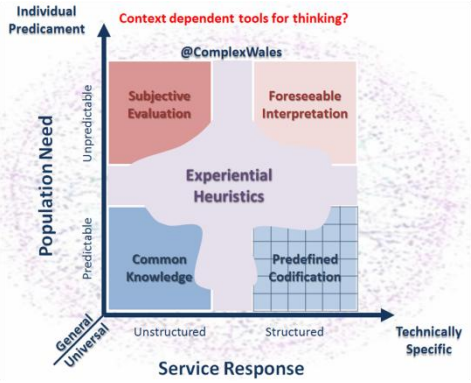
To complement this work, a number of desk top exercises were also undertaken to compare a range of established strategic assessment and care planning frameworks and proforma including but not exclusively; Comprehensive Assessment and Care Management, Fundamentals of Care and Activities of Daily Living. The various documents were simply cut up and the sections of each that asked for similar information were collated. There were broadly five amalgamated piles of paper that approximated the same themes identified in the tacit feedback, albeit with considerable variation in volume and granularity of data items across the themes. The findings also complement a number of published studies exploring the effectiveness of systems for clinical observation and assessment in fields as diverse as Child Development and Gerontology.

Ongoing empirical research continued with the Complex Care Forum - including interviews with practitioners in different and often isolated parts of the system - revealed a further and as yet, unseen congruence. Different practitioners in different services with different priorities, were all using the same decision making model in practice. Albeit with different language and occasionally a different priority or timescale, the essential practice is the same and aligned to a very similar pattern.

Traditional models of decision making would suggest that we gather all of the available information and then objectively calculate a correct answer. In practice, this is not the model of decision making used by practitioners in all but the simplest of choices. There is no equation

at the end of a Comprehensive Assessment that works out the answer. Furthermore, in the field of complex needs, there is consensus that this traditional reductionist approach is detrimental. The decision making technique actually employed has been described many times, but is best characterised by Charles E Lindblom, who coined the phrase 'successive limited comparison'. Further work by researchers such as Gary Klein and Daniel Khaneman; similarly articulate the capability of practitioners to make highly insightful and reliable judgements, based on rapid cognition. In practice, this is the ability of an experienced person to quickly recognise a small number of the most salient factors, with which to recognise and understand an otherwise complex situation. A common metaphor for this is a Clinical Radar!

Development & Methodology



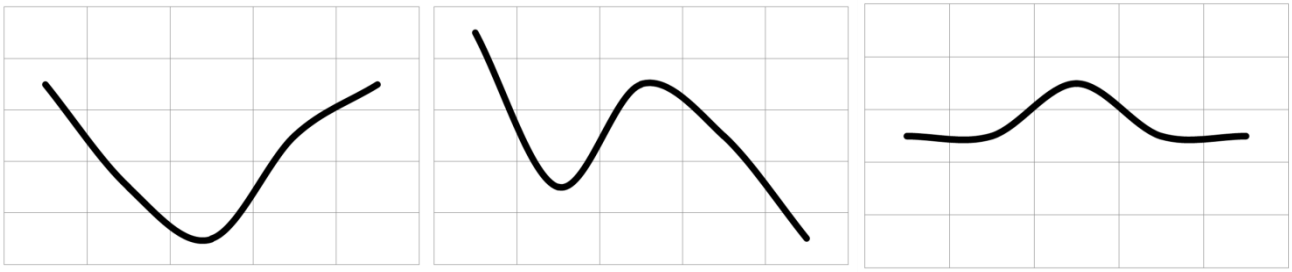
Employing a complexity concept that helps to distinguish the relative level of inherent predictability against the structure of the working processes and the situations within which the patients participated, the research sought to establish a consistent relationship between the five important factors and the practice of rapid cognition. The first iteration of a limited comparison uses just enough information to enable the practitioner to act.

Then, at mostly unplanned regular intervals, the limited comparison is repeated. The picture of the person emerges over time, first perhaps as a line drawing then, with each iteration additional colour and texture is added. This successive limited comparison builds an increasingly more profound picture of the person and leads to an increasingly more accurate predictor of the next best steps.

ANGEL refers to the five factors of Activities, Needs, Goals, Escalation and Location. The five factors are subdivided on a scale from 1 (simple) to 5 (chaotic). Under each factor the subtypes are deliberately bland to avoid any technical or professional specific language. Using the resulting 5 by 5 matrix of factor and scale, practitioners can slow down and capture their rapid cognition, or judgement of the patient's situation. The scores are added together so that each person has an overall ANGEL score on a continuum from 5 (low risk ordinary life) to 25 (a high risk extraordinary mess). Typically unspoken judgements can now be openly shared and compared.

TXM	Activities: description of social context and normal activities of daily living	Needs: scale and scope of existing needs and level of support required	Goals: identification and agreement of longer term personalised goals	Escalation: type of work or actions required to progress the plan of care	Location: where will the next step in the care plan take place and when
5 (save)	Socially isolated and vulnerable with immediate risks to maintaining independent living or threats to personal safety and wellbeing.	Requires constant supervision and immediate access to professional or specialist technical intervention to sustain life or avoid harm to the person and others.	Profound systemic, irreversible or permanent loss of normal functional ability and predictable or rapid decline over time.	Requires management escalation as routine care planning processes have failed, care plan in dispute, or resources are not available eg DTOC.	Targeted bed based placement with specialist service provider/multi managed facility including controlled access and intensive care type environments.
4 (serve)	Limited social connection with family or community and lifestyle predominantly focussed on sustaining a limited range of activities of daily living.	At least daily professional supervision within a comprehensive plan of care that may include predetermined access to urgent specialist support and intervention.	Significant loss of functional ability or continued instability over time. Possible lower or more stable rate of loss of functional in the long term.	Urgent access to specialist provider for assessment and intervention or formal application for external or long term coordinated package of care.	External NHS acute hospital type setting, long term placement in managed accommodation or specialist extra care housing service.
3 (support)	Social activities available with some direct support provided by services maintaining independence in the community or informal family and community support.	Rapidly changeable or established ongoing needs that require scheduled supervision and professionally planned observations, interventions or therapeutic activities.	Some current loss of functional ability or temporary instability prior to a longer term relatively stable level of functional ability below that previous established.	Professional referral for external planned specialist assessment and intervention, or agreement of ongoing care plan at formal MDT review.	Internal department, allied service or intermediate placement for planned observation and intervention. Move to temporary or long term community supported housing scheme.
2 (share)	Socially active with regular support of family and friends available, this may include community access to infrastructure or services promoting social inclusion.	Relatively stable or predictable needs that require some intervention, forward planning or review to improve or sustain normal wellbeing.	Functional ability will be maintained to similar or equivalent parameters that are consistent with the person's previously established normal activities.	Ongoing MDT assessment, observation and intervention within agreed care plan, or informal referral to allied services for ongoing care.	Returned/ maintained in usual place of residence or to other domestic setting, with additional planned support services or equipment and scheduled or ongoing review.
1 (show)	Fully active with regular social activities, living with the support of a multigenerational family or within an established interdependent community.	With appropriate information, advice or education the person is able to care for all of their identified needs with only occasional or self-directed additional support.	The person's normal functional ability or opportunity to sustain wellbeing will be significantly improved in their own opinion.	Routine care and task oriented work that is part of normal day to day service activity. Some time specific planned actions or interventions and objectives.	Returned/ maintained in usual place of residence with some planned or temporary follow up, or minor items of supporting equipment.

Here is the key: the ANGEL score is almost irrelevant, little more than useful shorthand. The pattern formed by the score is the critical knowledge for example: n-shapes or u-shapes are instantly recognisable and enable practitioners to quickly understand the nature of a patient they do not know. There are 3000 patterns so although derived from an abstract number, the score is individualised and represents a proxy measure of the person in the context of their life. Whether the score is interpreted as independence or autonomy or frailty or complexity or whatever, being less relevant than the ability to track perceived changes over time.



Ongoing Development & Application:

Measuring Caseload:

- The framework is already in practice, where teams of practitioners have captured an ANGEL score within a matter of seconds, for every person at every contact across their entire caseload. The result is a measurable picture of a person in context logged over time. The score also provides a real time glimpse of the workload with the demand management information necessary to direct and protect operational resources. The basic ANGEL Framework and an example of a rapid audit tool are appended.

Creating a Local Taxonomy:

- ANGEL is a like scaffold that enables local teams to build their own Taxonomy. ANGEL is designed to accommodate additional layers of detail in any subtype to capture more granular data, while maintaining the integrity of the score at a system level. Any existing information requirement can be mapped through the Taxonomy to be shared and analysed as composite data without changing established and often competing, information tools or systems currently in use. Early discussions are also underway to develop a self assessment version of ANGEL for use in consultations and therapy.

Workforce Acuity:

- Traditional operational workforce planning has been based on one of two opposing theories: either a convenient high level ratio of customer to worker; or a time in motion audit that lists work as a finite menu of time dependent actions. Neither of these techniques has been sustainable as they lack situational context. ANGEL is a consistent

measure of caseload upon which, any future policy or mathematical analysis of staffing levels can be tested to examine cause and effect within and across different operational teams. An acuity calculator is built in to the suite of analytical tools currently in use.

Decision Making:

- ANGEL is not an invention; it is a description or distillation of what actually happens in practice, in different places, in the real world. Practitioners are already using the techniques, so openly recognise and accept the underpinning methodology, the emergent nature of its discovery and its consequent application back into practice. ANGEL creates the necessary conditions to compare and communicate potentially disparate judgements. Where a score demonstrates variation in opinion, action can be triggered quickly. ANGEL is being used to structure, capture and share these otherwise invisible decision making activities, within existing electronic information systems.

Work Flow:

- ANGEL is designed to capture in real time, "a snapshot of the person you're looking at" however; trials are underway within existing information systems to capture ANGEL electronically with a prospective score. For example, within a multidisciplinary meeting, complex care planning discussions and decisions take place. Capturing an ANGEL score of the expected outcome of these decisions (where the person's is going to be at a future date), creates a system flag for logistical planning and review. The result is a systematic description of work flow or future demand ie exactly who needs to be where, by when and is currently being designed into existing escalation and referral processes.

Organisational Development:

- The ANGEL Taxonomy has been developed as part of the ongoing national work of the Complex Care Network, one element of which was the publication of 'Multidisciplinary Working – A Framework for Practice in Wales' (2011). This framework highlights the need to support and develop practice that transcends traditional institutional and professional boundaries. ANGEL will be a recommended methodology to inform localised developments of a 'Trigger Tool' and 'Decision Tree' for MDT working. The knowledge management structure of ANGEL has also been used to translate the original 10HICs for operational adoption. The underpinning purpose, performance measures and practices are intended to simply align with existing clinical activities.

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Example: Rapid Audit Tool (stick a label and scribble the scores)

A	ID/DATE/NOTE	A	ID/DATE/NOTE
N		N	
G		G	
E		E	
L		L	

A	ID/DATE/NOTE	A	ID/DATE/NOTE
N		N	
G		G	
E		E	
L		L	

A	ID/DATE/NOTE	A	ID/DATE/NOTE
N		N	
G		G	
E		E	
L		L	

A	ID/DATE/NOTE	A	ID/DATE/NOTE
N		N	
G		G	
E		E	
L		L	

A	ID/DATE/NOTE	A	ID/DATE/NOTE
N		N	
G		G	
E		E	
L		L	

ANGEL Taxonomy

Implementation: To deliver sustainable improvements in the health and wellbeing of people who live with complex needs. (Referenced to the 10 High Impact Changes for Complex Care)
Primary Measure: People identified with complex needs are provided with every opportunity to live better and for longer in their usual place of residence. (HIC1)

	Stage	Intervention
Meaningful Contact	**Activities** On initial contact undertake a rapid outline assessment of the person and their typical daily life. (HIC2)	1. Create a typical picture of the person and identify their complexity of needs using the Trigger Tool[1] 2. Agree an outline plan of action with the person, their family and carers at the initial contact
Effective MDT	**Needs** Act on the triggers from the outline assessment within a maximum of 24 hours from initial contact. (HIC3)	3. Within 24 hours make arrangements for and coordinate, the required assessments and interventions 4. Within 24 hours set a date to complete the first multidisciplinary review within 10 days
Effective MDT	**Goals** Complete a comprehensive assessment within a maximum of 10 days from initial contact. (HIC4)	5. Determine a multidisciplinary prognosis and agreed goals with the person, their family and carers 6. Undertake a formal MDT review and assign responsibility for ongoing actions and care coordination
Effective MDT	**Escalation** Proactively support the person to reach the optimal condition to start their longer term plan of care. (HIC5&6)	7. Complete each MDT review using the Decision Tree[2] setting a date for the next review or transfer of care 8. Develop a longer term plan of care led by the Care Coordinator and the person, their family and carers
Meaningful Contact	**Location** Agree where and when the person will commence their longer term plan of care and the period of review. (HIC7)	9. Make arrangements for where and when the person will commence their longer term plan of care 10. Set a date to review the longer term plan and handover care coordination using the updated Trigger Tool[1]

Strategic Measures

- Annual organisational performance reviews by individual MDT (HIC8)
- Joint organisational reporting on long term packages of care (HIC9)
- Workforce development implementation of the MDT Framework (HIC10)

ANGEL Taxonomy

ANGEL Murmuration

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ANGEL is an acronym to describe five factors that help a clinician to decide what type of care a person needs.

ANGEL is not a tool and it hasn't been invented to solve a particular problem, it is a description or distillation of how a practitioner actually forms a complex judgement about a person in their care!

1. Think of a person that you know really well, they could be a friend, relative, someone from within your professional experience or best of all, a person currently in your caseload. Now recall the last time that you saw that person. You are about to make a sophisticated judgement about that person in the context of their typical life, at the point in time when you were last looking at them.

2. Now starting from the left had column with Activities, think about that person and choose on the scale from 1 (simple) to 5 (difficult) where you think your person fits. Don't over analyse or think too hard and remember that you are scoring the person in front you not, your service or intervention or where you think they should be. You are assessing the person you're looking at.

3. Now move across the five columns similarly assigning what you consider to be the most appropriate score for your person under the remaining 4 headings. There is no ½ score or decimal place and the scores are deliberately not highly specified or defined. The score is just a guide, to help make sense of the person's own situation. There is no single correct pattern, so the scores may produce a straight line or a zigzag.

4. Add up the 5 numbers. A total score of 5 is a simple situation; this should be easy to sort out within routine activities. A score of 25 is a crisis; this is about saving life and breaking the rules when necessary to deal with imminent problems. A score of 15 however can vary considerably; this is a complex case that may require some quick simple intervention, alongside a more sophisticated plan of care.

A particular score does not denote a particular outcome and in fact the score is actually irrelevant! The number is merely convenient shorthand, for the insightful and valuable judgement that you've just made. There are over 3000 combinations so although an abstract number, the score is personalised and represents a proxy measure of the person in the context of their typical life. Whether the score is interpreted as independence or autonomy or frailty or complexity or whatever, being less relevant than the ability to track perceived changes over time.

The score or more precisely, the five numbers, enable organisations for the first time, to capture the professional judgements that have previously disappeared as a fleeting moment in time. The five numbers collected over time unlocks new knowledge about the needs and demands placed upon staff and the wider system. Imagine the power of a measure of the complexity of need across an entire community?

ANGEL is currently being trialled and developed further across a range of health and social care settings. For more information on the ANGEL Taxonomy, the Complex Care Collaborative and the wider world of Complex Care Wales, please contact Matt via:

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Ongoing Development & Application of ANGEL

Complex Care Collaborative:

ANGEL has been developed as part of the ongoing national work of Complex Care Wales, one element of which is supporting the adoption of 'Multidisciplinary Working – A Framework for Practice in Wales' (2011). Implementation is being focussed through the development of a national collaborative focussing on complex care. ANGEL will be a recommended methodology to inform localised developments of a 'Trigger Tool' and 'Decision Tree' for complex care capturing personalised outcomes.

Measuring Caseload:

The methodology is currently undergoing working trials, where teams of practitioners have captured an ANGEL score within a matter of seconds, for every person at every contact across their entire caseload. The result is a measurable picture of a person in context logged over time. The score also provides a real time glimpse of the workload with the demand management information necessary to direct and protect operational resources. The basic Taxonomy has been translated onto a wide range of existing operational and audit tools.

Workforce Acuity:

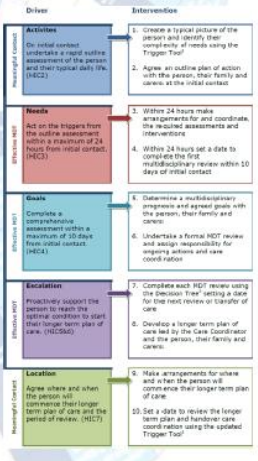
Traditional operational workforce planning has been based on one of two opposing theories: either a convenient high level ratio of customer to worker; or a time in motion audit that lists work as a finite menu of time dependent actions. Neither of these techniques has been sustainable as they lack situational context. ANGEL is a consistent measure of caseload upon which, any future policy or mathematical analysis of staffing levels can be tested to examine cause and effect within and across different operational teams. An acuity calculator is built in to the suite of analytical tools currently in use.

Decision Making:

ANGEL is not an invention; it is a description distilled from observations of what actually happens in practice, in different places, in the real world. Practitioners are already using the technique, so openly recognise and accept the methodology, the emergent nature of its discovery and its consequent application back into practice. ANGEL creates the necessary conditions to compare and communicate potentially disparate judgements. Where a score demonstrates variation in opinion, action can be triggered quickly. Further developments are using ANGEL to structure, capture and share these decision making activities - a fundamental precursor to improved multidisciplinary working.

Knowledge Management:

ANGEL can accommodate additional layers of detail in any subtype to capture more granular data, while maintaining the integrity of the score at a system level. Any existing information requirement can be mapped through the Taxonomy to be shared and analysed as composite data without changing established and often competing, information tools or systems currently in use. Early discussions are also underway to develop a self assessment version of ANGEL. The knowledge management structure of ANGEL has also been used to translate the seminal publication the '10 High Impact Changes for Complex Care' (2010), into an improvement Driver Diagram:



Work Flow:

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