

Avoiding Inappropriate Acute Admission

Strata Health Study Analysis™ within the NHS of England

Extract from Study commissioned by Barnsley PCT & the South Yorkshire Strategic Health Authority: November'05

A. Inappropriate Acute Admissions within the UK Health System

Throughout the UK, and consistently seen among Commonwealth Nations, the gap between 'patient need' and 'limited resource' continues to widen within the acute environment, despite many ongoing initiatives. Therefore, the need for a greater understanding and positive interventions towards optimizing use of acute capacity within health care delivery systems is critical to managing resources within the dynamics of supply and demand.

Capacity Management: Palpably, it will be critical going forward to establish a truly optimized model of capacity management due to increasing and more complex delivery of care to an aging population.

Areas of impact for well-practiced Capacity Management are:

1. Managing down and ultimately preventing 'bed blocking' / 'bed locking' (gridlock) hence freeing up capacity in acute for emergency admissions and/or planned surgery
2. Ensuring new ED presentations meet appropriate clinical profiles truly requiring acute admission, while efficiently supporting non-ED admissions with appropriate non-acute services
3. Optimize patient outcomes including overall safety, quality of treatment/care (ending revolving door admissions)
4. Aiding front line clinicians by reducing administrative burden and therefore increasing time to focus on the patients' needs (improving moral, effectiveness, working conditions and retention).

The current climate of capacity management in Primary Care Trusts (PCT's) has progressed effectively under several initiatives (non exclusive list):

Rapid Response

Bed Management Staffing in Acute

MDT collaboration

IMC resource (Mt. Vernon)

Planned patient flow initiatives (A2A discharge planning, in-reach programs)

Notwithstanding, system pressures continue with

Hard to place outliers grid-locking capacity and flow within acute beds

Longer than necessary ALOS

Access to A&E (ED) consistently compromised

Access to scheduled surgical procedures impeded

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Necessity of Change:

The best approach to address capacity management issues is a holistic one – one that includes a continued focus on positive initiatives currently in place along with new initiatives that provide additional effectiveness in achieving the desired outcomes. Inevitably, this approach is also the most difficult and imposes some risks along the way.

"Change is the law of life. And those who look only to the past or present are certain to miss the future."

John F. Kennedy

During July 12-16, 2005 - a spot audit was conducted within a broad area of the NHS Central England to determine whether or not patients were residing in the appropriate level of care, to determine if any acute beds were being 'wasted', and to quantify avoidable acute admissions using clinically based ADP criteria.

Numerous findings were reported supporting the hypothesis that work is needed to better deliver against the above criteria, including:

- 47% acute patients (1087 over a 5 day period) could / should have been elsewhere (did not qualify for acute)
- 38% of these 1087 needed lower level care, 36% of these needed community resource, 15% needed to just go home!
- 65% of the 1087 should be straight forward discharges (no refusals of equipment needs)26% to HC, 53% to step down care, 21% 'needed a ride!'
- On the community side, 15% needed a bed (at a 20% occupancy rate, this is due to failed logistics), 58% needed equipment, day hospital or home care, 25% needed social services support (social worker)

During Strata Health's process mapping exercise, a large cross section of managers and staff within each care stream were engaged over a period of 2 weeks.

The following observations under girth the detail of each care stream process map and are further supported by specific and documented examples or reference to specific operational occurrences.

Some of the following observations aid in developing a broader patient flow / allocation of real time resources strategy. Other are more general observations that are fed back within this report as simple comments / data collected during our discussions.

B. Overview of Strata Health Solutions (www.stratahealth.com)

Incorporated in 2000, Strata Health Solutions' key purpose is to deliver critical patient flow practices – achieving real and dramatic benefits for patients, their families and the world's devoted front line caregivers.

Strata PathWays™ a new way of thinking about patient flow management. It's "pull" instead of "push." It works with the reality that the best opportunities for improving patient flow lay not at Emergency Department Admissions, but downstream, at acute care discharge.

An online, real-time waitlist optimization system. Connected to care providers in the community, Strata PathWays™ provides front line clinicians with real-time information on appropriate bed availability for post-acute patients. The system radically reduces the time that patients occupy acute care beds after they have been assessed for release into alternative supported living facilities - including care centres, assisted living, sub-acute and palliative...even adult day programs.

Proven. Strata Pathways™ is now significantly reducing wait times and opening up acute care resources in Health Regions supporting over 4 million people in Western Canada. For example, before the Calgary Health Region adopted PathWays™, their post-acute patients lay in bed up to 19 days longer than required. That's how long it took to locate an appropriate facility in the community. After implementation of PathWays™, the average placement flow dropped to 6 days - a drop of 68%. Over 25,000 acute ALC (Alternate Level Care) days were removed from the Calgary system ... a 50% improvement vs. pre-PathWays. Indeed, during the December 2005 Accreditation Survey – Calgary Health's Acute ALC blocked beds were calculated at only 1% ... the lowest Canadian score in 2005.

Manages workloads at the front-line. The focus of Strata PathWays' technology is to empower the world's devoted, but overburdened front line caregivers. As an automated system, it makes obsolete the manual labour they struggle with each day. At the touch of a keyboard, it provides them with real-time information on bed availability throughout the community – relieving them of the endless phone calls, faxes and overall inefficiency inherent to their current paperwork-heavy systems. Strata PathWays™ empowers front line professionals – allowing them to focus their energy and experience on compassionate and 'difficult to place outlier' clients.

Honors patient choice and family dialogue. Pathways' decision logic and intelligent algorithms ensure that the specific circumstances and preferences of the patient and family are taken carefully into account when seeking community placement. In the Capital Health Region of Edmonton, existing clients successfully transferring to their location of choice increased 300% in 2005. In the first quarter of 2006 at the Vancouver Island Health Authority, 95% of clients were placed to their geographical preference: vs. less than 50% in the previous year's same period. Families benefit from PathWays as well. Together with the patient, they have been faced with what may be a life-altering event. The lack of objective information that paper-based systems provide about bed availability can be immensely frustrating to all stakeholders. The family can often only hope that their loved one will end

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up in a facility of choice. In contrast, PathWays provides real-time, objective information about community availability: permitting the patient and family to have a meaningful dialogue based on facts, not hope.

Improves care for all acute and post-acute patients. Taking a “pull” approach to patient flow doesn’t just benefit clients with post-acute status. It also improves care for new acute-care patients by providing faster access to emergency departments and acute wards. PathWays ensures that no post-acute care clients ‘ slip through the tracking cracks’ as they can in manual systems. Real-time and escalating alerts ensure clinicians are kept abreast of the status of each and every transitioning client – significantly improving client safety at each stage of the transition to supported living placement. Further, it allows optimal community care placement and immediate critical in the community program access to avoid inappropriate acute admissions.

Eases administration and spurs continuous improvement. Adoption of Strata PathWays™ benefits Health Administrators immediately and in the future. Installation is turn-key, allowing the Jurisdiction to maintain its focus on existing strategic imperatives. Each day, patients will be assigned to the community with placement protocols that ensure consistency and objectivity based on health policy. PathWays’ store of objective data permits benchmarking in the aid of continuous improvement, and promotes fact-based management against performance markers like Balanced Scorecards and Provider Contracts. And looking forward, an integrated platform for future scalability is being established by streamlining manual administrative processes in front of the accelerating client and health professional aging demographic curves.

Proven results throughout western Canada combined with detailed consulting in various international forums puts Strata Health in the unique position to assess and implement bleeding edge patient flow initiatives such as Strata PathWays™.

C. Overview of the Inappropriate Acute Avoidance Study

This paper summarizes the findings of a study undertaken within the Barnsley PCT and associated Health & Social Care network within central England (commenced September 2005).

The study’s goal is to deliver a clear planning document to:

- map care stream process to create a foundation for strategic planning.
- assess the borough’s current patient flow processes.
- present considerations for patient flow redesign, specifically how PathWays technology might deliver sustainable benefits within Barnsley.

This summary paper outlines various action recommendations that span from simply ensuring current policy is put into practice to specific redesign options that will drive incremental gains in process efficiency. In addition to recommendations, an implementation plan designed to deliver the most significant gains over the shortest period of time has been

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included. Finally, a feasibility study of possible linkage between the McKessen InterQual product and Strata PathWays provides a unique opportunity.

Scope / Range of Study:

The scoping study included engaging both management as well as front line clinicians to ensure the underlying process of day-to-day occurrences was captured apart from stated policy and program.

Participating Care Groups:

- Acute
- Ambulance
- Mental Health
- Home Care
- Hospice & Palliative
- Participating Care Groups
- Rapid Response
- Intermediate Care
- Adult Day Care
- Learning Disabilities
- Hospital at Home
- Social Services Emergency Response Team
- Central Call Business Unit
- Prime Care
- NHS Direct
- Social Services
- Physical Disability
- Volunteer Services
- Commissioning
- Falls Services
- Health Visits
- Public Health
- GP's

Areas set out in the commissioning document to be reported on included:

- The SAP process
- Patient Privacy
- Patient Choice
- Eligibility and admission criteria
- Discharge planning
- Escalation policy and effectiveness
- System scalability
- Data capture and reporting

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Additional areas discussed while in Barnsley include:

- Frontline workload
- Communication
- Retention & Succession Planning

D. Project Activities and Components

A detailed process mapping exercise involving 22 stakeholder groups over a series of 45+ meetings produced 24 process maps and 4 core recommendations.

It should be noted that each care stream, in collaboration with colleagues, agreed to the final process maps as accurate at the time of creation.

The following is a summary of the high level findings of the Strata Health Solutions study:

- Overall, the effectiveness of process within Barnsley & associated stakeholders is favorable.
- The efficiency of process (decisions moving to action) is unfavorable.
- Communication across silos (departments / agencies) lacks continuity and is indicative of a highly manual system of administration and process.
- Alternate care options and the status of these options are not well known to referring / admitting teams (GP's, discharge coordinators).
- Referrals to special care or chronic disease initiatives are limited through eligibilities. It can be difficult to place the best clients into these limited programs.
- The SAP (single assessment process) is manual in format, but also in process - creating bottlenecks in patient transition. This causes duplication and limits effective communication.
- There is a reactive versus planned approach to patient journey - specifically referral/ admitting processes. Limited knowledge of options results in A&E being the front door to access care.
- Acute admissions are efficiently processed (clients <3 hr waits), but are driven by lack of knowledge or timely access to downstream options, resulting in inappropriate admissions to acute. Result is the wrong patient in wrong care stream.
- Discharge planning & communication requires a broader reach to supporting agencies in order to facilitate:
 - better flow in discharge (unrushed) including coordinates of meds, transport, home audits
 - reassurances to ward residents that care plans are accurately in place so that permission for discharge is not withheld.
 - delivery of optimal care plan to minimize need for readmission to acute (revolving door)
- Inter-borough patient transfers are further complicated by lack of communication. These outliers may increase under patients right to plurality of provision.
- Data capture is limited post acute services and is highly manual. This is limiting in support of both short term decision management and long term planning.
- Highly manual systems operate on a high level of acquired human knowledge. This poses a significant risk to the organization when this individual knowledge is lost and staff turnover/retirement occurs.

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- Inconsistent interpretation of procedural policy is systemic to manual process (community nurse's ability to admit, allowed time for home care placement). Reality is that practice can vary from policy.
- Clients waiting placement may not have complete information / assessment, or assessment information may be requested to be reworked causing inappropriate placements, delays, erroneous work and ultimately, system backlog.
- Participants are eager to input & effect change. They are passionate to make a difference!

E. Recommendations

- Utilize process maps to engage departments and critique existing process. Ensure best practice is in place & that clarity is provided in policy.
- Automate patient placement process. Make effective process more efficient via automation of administration & business rules, allowing a greater clinician focus on client care.
- Extend this functionality to domiciliary packages of care to optimize client outcomes (aging in place with dignity) and stop revolving door admits.
- Take decisive action by leveraging a Managed Services model to deliver a fresh approach and commitment to achieving measurable system gains with minimal impact on Borough's existing resources.

F. Projected Outcomes

Quick delivery of incremental acute bed capacity without capital investment via:

- quick discharge of clients inappropriately residing in acute.
- better real-time options for patients typically admitted inappropriately into acute.
- delivering more efficient packages of care in the community (timing, appropriateness) to support aging in place and a reduced revolving door of patients into the A&E.

Enable Foundation Trusts to reallocate capacity away for general medicine admits.

- Allow PCT to effectively manage commissioning to best match client need.
- Support referring groups (GP's etc) to enable more appropriate patient journeys for their clients, hence better outcomes.
- Allow Social Services & other supporting agencies to maintain these clients in the community with greater success and less administrative complexity.

Patients, Families and GP's:

Patients, their families and GP's will have a much more transparent view of the 'action plans' for any decided package of care. This becomes important during any health related life-changing event. Increasingly, 'aging in place' is becoming more important; not only as a patient's right, but also as quite frequently it is the best environment for the patient so

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long as care can be effectively delivered. By receiving the right care, at the right place, at the right time, patients will spend less time in hospital (less frequently) and more time independently and with dignity at home. This benefits the patient's mental health, physical health (reduction of nosocomial infections), as well as the system's health in terms of being able to cope with the ongoing demands of the population.

PCT's:

As commissioning agents, Barnsley's will see the benefits of better patient outcomes throughout the entire continuum of care, including:

- Less system pressure via diversion from inappropriate acute care visits (fewer acute admissions, reduced cost in medical patient acute visits)
- Higher patient satisfaction (preferences identified, in less time)
- The ability to administrate 'payment by results' via reporting on the delivery of packages of care (Strata HomeFirst)
- The ability to assess outcomes vs. the cost of provision, enabling evidence based commissioning that best suits the patient (ex. High frequency homecare vs. residential care)
- The ability to track critical elements including delayed discharges (reimbursement) and discharge status of clients, impacting targeted HRG tariffs payable
- The ability to deliver performance targets (reduced ALOS, Ambulance response times, lower surgical wait times, plurality of provision)
- Trending data - not only what kind of step down care is required is available BUT ALSO the physical geography, demographic, and ethic consideration that is necessary to adjust capacity going forward.

Foundation Trusts:

Foundation Trusts will enjoy optimizing income via increasing higher revenue procedures (planned elective surgeries) by a corresponding decrease in medical patient admittance. Further, the patient journey of all discharged clients will be clearly apparent at the back end of any acute episode/surgery , optimizing hospital resource via quick and effective transitions to step down care.

Options to step-down care need to be updated seamlessly and in real time as part of the overall process to achieve real efficiencies. This will translate into lower ALOS, freeing capacity for additional service delivery OR new initiatives in reassigning resources / diversifying to alternate care streams or delivery models (IMC or walk in clinics). Trolley waits/bed gridlock is avoided and elective surgery wait-times are reduced. Outliers that are difficult to place outside of acute care are afforded the time, focus and energy they require to move them into a proper care location and free up blocked beds. The communication that exists today will be easily transferred to partner organizations on a timely basis. Patient care improves. Employee moral improves.

The McKessen InterQual product and Strata PathWays will compliment each others efficacy – InterQual determining if clients do not meet acute admission criteria, PathWays providing real-time, appropriate alternative resources in which to access.

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The Ambulance Trust:

The Ambulance Trust would have access to the status of patients in the discharge process – in real time. Same day discharge/transportation request would be avoided as real time information and physical location of targeted discharge could be seen at any given time.

Additionally, the Ambulance Trust could conceivably become a very effective 'diversion strategy' under the EPS initiative if able to triage and refer at point of contact. In this scenario, again available physical resources can be assessed in real time and ongoing service requests can be logged immediately for set follow-up within a select and configurable response time window.

Social Care:

Benefits for Social Care are vast. Social Care, being responsible for coordinating patient/client support, post hospital discharge (cure), and/or while in the community, diverting inappropriate hospital visits, must compile and deliver complex packages of care on a timely basis. This ongoing and complex care process, if optimized, will:

- Enhance clients ability to age in place & remain independent in the later stages of life
- Ease pressures families encounter as loved ones require specialize & ongoing care
- Help clients realize best personal choices that match their required package of care
- Ensure that their ability to deliver these services is optimized by efficiently stretching the dollars available and purging the system of inefficiency
- Allow employees to benefit from technical support and automation, making administration less of the job and client care more.
- Coordinate the various areas that deliver care so as to optimize all Social Care resources and maintain the best overall client outcomes.

Voluntary Agencies:

Voluntary Agencies will no longer be void of communication. Depending on permissions and roles, various agencies will be able to understand the dynamics of patients/clients and plan how to best aid those clients.

G. Project Status

To date, the Strategic Health Trust has undertaken an internal review of manual process maps – and launched joint project committees including NHS – Social Services and Provider front line personnel which have adopted the recommended process changes on a manual basis included in the Strata Study.

A NHS restructuring/contraction that will bring Social Services and NHS personnel and boundaries much closer is approaching completion as of this summary date providing the appropriate opportunity for further consideration and ongoing assessment of funding & commissioning of Strata PathWays™ application to optimize process flow within the North of England.

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