

Weekend/Monday discharge
processes for emergency
overnight medical patients

in selected clinical specialties
and hospital sites

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Executive summary

Aim

The purpose of this project is to identify processes associated with better management of inpatient flow on weekends as indicated by weekend discharge rates.

Current situation

A review of NSW hospital discharge data for emergency medical overnight patients in the period July 2001 - June 2002 indicates that access block and hospital occupancy are highest on Monday to Wednesday. A factor potentially contributing to this is the apparent lower rates of discharge on weekends. Generally there is an even flow of emergency medical overnight admissions to hospitals throughout the week in NSW.

In February 2003, the Weekend Discharge Project Steering Group recommended that more detailed information be obtained on the key issues that limit discharge of emergency overnight medical patients on weekends and/or Monday morning and potential opportunities for improving discharge on weekends. This was to be obtained through site visits to ten hospitals, focusing on four high volume medical specialties of aged care, cardiology, general medicine and respiratory.

Findings

Through a series of workshops and interviews at each site involving staff at all levels, the project identified:

- processes generally associated with higher rates of discharge on weekend
- factors limiting but not preventing discharge on weekend
- initiatives to improve patient flow and access
- innovative practices and processes
- tried strategies for improving discharge.

These findings are identified under Recommendation 5 as strategies for consideration in a review of patient flow and discharge in particular.

Conclusion

A sustained improvement in available beds requires a balanced, holistic approach, which incorporates efforts at managing patient flow through Emergency Departments, managing inpatient flow through the hospital and managing external factors which reduce or limit the capacity to discharge. Hospitals are involved in various activities and strategies to maximise efficient use of inpatient beds. Sharing of knowledge and processes will further advance improvements and changes for improved patient flow.

Recommendations

Recommendation 1

The project report will be distributed to all Area Health Services and specifically to the hospitals which participated in the project.

Recommendation 2

The outcomes of this project are made available to the Institute of Clinical Excellence for inclusion in the Patient Flow and Safety Collaborative to specifically progress the implementation of the processes associated with higher weekend discharge identified in this project.

Recommendation 3

NSW Health provides reports for each Area Health Service on daily discharge rates in the specialties of aged care, cardiology, general medicine, and respiratory by hospital and de-identified clinician data.

Recommendation 4

Discharge rates and practices of the hospitals participating in this project be reviewed in nine months to identify improvements facilitated through participation in this project.

Recommendation 5

Hospitals in NSW, particularly principal referral and major metropolitan hospitals, review and where appropriate implement the strategies listed:

Staffing

- Admitting medical officers to make three or more rounds during the week and at least one round on the weekend.
- Greater delegations/authority for discharge given to the registrar.
- Registrar cover provided for the specialty on weekends.
- Bed manager available during Monday to Friday 8am to 4.30pm, outside these hours and on weekends.
- Discharge planner rostered for Saturday morning.

Risk assessment

- Use Emergency Department Information System (EDIS) to flag patients with frequent presentations and/or complex discharge needs.
- Provide information to ward staff on diagnosis mapped to Diagnosis Related Group (DRG) and to facilitate better estimation of expected length of stay.
- Use an integrated discharge screening/ risk assessment tool that incorporates an occupational health and safety risk assessment.
- A quick response program that includes allied health, nursing and medical staff.

Estimated date of discharge

- Patient information brochure advises patients to request a discharge date from their doctor.
- Patients for discharge are coded: those expected to be discharged on the day, and those expected to be discharged on the following day, and the variance is monitored.

Referrals

- Protocol based referral systems to allied health for assessments and discharge planning.
- Allied health staff are allocated to the specialty or specialty ward.

Teamwork

- More than one case conference per week, which includes all relevant, nursing, allied health and medical staff.
- Nurse unit managers who are perceived as providing strong leadership to facilitate discussion with medical staff on potential discharges.
- Clinical nurse consultant sees outliers to facilitate discharge.
- Regular meetings are held with all directors of nursing of the residential aged care facilities in the area.
- Shared care by the physician and geriatrician for elderly patients.
- Service level agreements with residential aged care facilities for acceptance of patients requiring intravenous antibiotics, where the hospital provides resources and training to nursing staff at the residential aged care facility.

Services

- Extra radiology team during the winter period.
- Post Acute Care Services (PACS) and rehabilitation discharge team provides short-term care for patients discharged prior to community services commencing.
- Admitting Medical Officer (AMO) who discharges a patient and treats them within two weeks as an outpatient provided with an extra endoscopy session.

Medications

- Pharmacy service dispenses inpatient medications to minimize medication errors.
- Pharmacy service has a priority scheduling and tracking system for dispensing medications.
- Pharmacy accepts faxed prescriptions to give better lead-time for preparing medication for dispensing on sighting of original.
- Integrated discharge summary with discharge prescriptions to reduce adverse events, improve accuracy and reduce dispensing time.

Discharge summary

- Discharge summaries written progressively.

Definition and scope

Access block in the Emergency Department indicates being unable to transfer a patient to an inpatient ward due to the lack of available beds. The availability of beds is influenced by the management of patient flow within the Emergency Department and through the hospital. Discharge processes are one of many factors affecting the management of patient flow.

In February 2003, a multi-disciplinary steering committee reviewed NSW hospital discharge data for emergency medical overnight patients in principal referral and major metropolitan

hospitals for the period July 2001 – June 2002. Emergency medical overnight patients are those patients whose condition requires treatment within 24 hours and stay one night or more in the hospital. They are not booked patients. The steering committee identified a number of key issues that limit discharge and opportunities for improving discharge on weekends. They recommended that more information be obtained through a detailed study focusing on four high volume medical specialties of aged care, cardiology, general medicine and respiratory.

The Emergency Department Access Block Working Party Report (1999), noted that the problems experienced in the Emergency Department are system wide problems which are neither caused by Emergency Departments nor able to be resolved in isolation. The report of the Audit Office of NSW (2000), on hospital Emergency Departments further noted that while there are identifiable opportunities to improve patient flow in the Emergency Department the benefits of these would be limited by being unable to move patients to a ward. Important and major initiatives have been undertaken at State, Area Health Service and Emergency Department level to improve patient flow in Emergency Departments. These include additional short stay beds in the Emergency Department and rapid emergency assessment teams.

This year the Electronic Medical Journal of Australia (EMJA) published six papers addressing the problem of access block in Australian Emergency Departments. Six hospitals across Australia identified the range of strategies to address the issue and the measure of success these had achieved. Strategies generally fall into three categories:

- a. Managing patient flow within the Emergency Department such as:
 - extended after hours service of the ambulatory care ward
 - quick response teams to assess and prevent admissions
 - increased senior medical staff cover after hours
 - centralised bed management units and revising hospital policies on ambulance diversion.

- b. Managing inpatient flow through the hospital such as:
 - increased bed capacity; earlier discharge planning
 - improved Friday preparation for patients ready for discharge on weekends
 - better monitoring of inpatient Average Length Of Stay (ALOS)
 - the appointment to positions specifically for coordinating complex discharges.
- c. Managing external factors which reduce or limit discharge such as:
 - improved communication with residential aged care providers
 - improved links with community services
 - improved access to transport services on the weekend.

Generally the hospitals whose interventions were balanced across all of the above categories reported more sustained improved outcomes.

The editorial for this issue of the EMJA concluded:

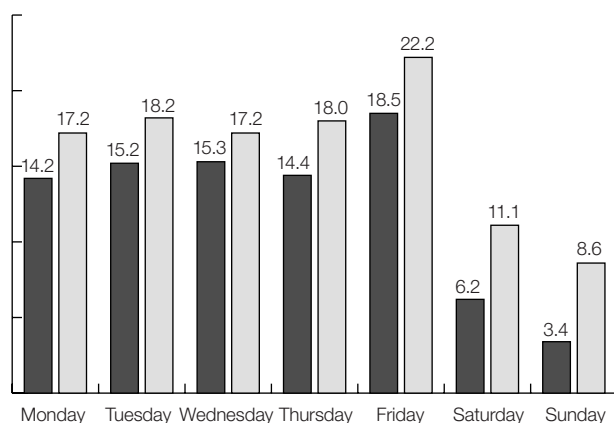
“There are solutions. However, political leadership and a coordinated national approach are necessary to resolve underlying structural issues surrounding workforce, work practice and funding.” (p 100)

Current situation

A review of NSW hospital discharge data for emergency medical overnight patients in the period July 2001 – June 2002, indicates that access block and hospital occupancy are highest on Monday to Wednesday. A factor potentially contributing to this is the evident lower rates of discharge on weekends. Generally in NSW, there is an even flow of emergency medical overnight admissions to hospitals throughout the week.

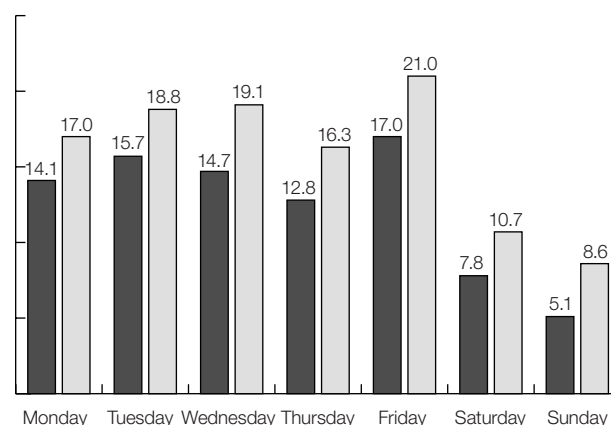
On Fridays discharges increase by about 25% over the Monday to Thursday rate. On Saturdays the rate falls to $\frac{1}{2}$ of the Monday to Thursday rate and on Sunday the rate is $\frac{1}{3}$ of the Monday to Thursday rate. These rates can differ significantly between specialties at the one hospital and within specialties between hospitals.

Daily minimum and maximum discharge rate (%) for emergency medical overnight admissions* in principal referral hospitals (A1), July 2001 – June 2002



* Based on local specialty code for AMO.

Daily minimum and maximum discharge rate (%) for emergency medical overnight admissions* in major metropolitan hospitals (B1), July 2001 – June 2002



* Based on local specialty code for AMO.

3.1 Other current initiatives

There are several initiatives being facilitated by NSW Health, which aim, to contribute to reduced access block in Emergency Departments. These include:

- using the dynamic simulation model to systematically test interventions that may assist with developing protocols, processes or resource allocation for optimal care of complex medical patients
- proposed appointment of a weekend discharge facilitator to communicate with senior medical staff and senior nurse on wards regarding patients ready for discharge on weekends or early on Monday
- determining whether the early linkage of referral services in Emergency Department has an impact on improved hospital care and discharge planning as defined by hospital length of stay indices.

Other initiatives also likely to affect patient flow are:

- the Patient Flow and Safety Collaborative is a joint initiative of the Institute of Clinical Excellence and NSW Health. It aims to improve access to acute hospitals for patients throughout NSW and reduce the rates of significant adverse events through fostering a safety culture. The Patient Flow and Safety Collaborative will involve up to 34 teams from 16 Area Health Services across NSW working intensively together for 12 months
- the Models of Care Implementation Working Group has developed the Effective Discharge Planning Framework and Implementation Strategy for NSW Health. It is intended implementation of the framework will occur at the local level. The project teams will focus on components of the framework. A pilot project will be conducted on the evaluation and monitoring components of the framework.

4.1 Site selection

- Discharge rates for Friday, the weekend and Sunday were calculated in the specialties of aged care, cardiology, general medicine and respiratory and for each major metropolitan and principal referral hospital in NSW for the period July 2001 to June 2002 (Appendix 1 and 2).
- The discharge data excluded deaths, transfers and discharges from the Emergency Department and includes all deaths, transfers and discharges from the hospital.
- The data was extracted using the Admitting Medical Officer (AMO) code and specialty codes used in the Health Information Exchange (HIE).
- The report also included the overnight emergency readmission rate, breakdown of Monday and Tuesday admissions by time of day and the percentage of admitted Emergency Department patients experiencing access block.
- Access block refers to the percentage of admitted patients who were in the Emergency Department for more than eight hours.

The following hospitals and specialties were selected:

Aged care – St. George Hospital, Sutherland Hospital, Hornsby – Kuringai Hospital

General medicine – Fairfield Hospital, Blacktown Hospital, Gosford Hospital

Cardiology – Royal Prince Alfred Hospital, Wollongong Hospital

Respiratory – Westmead Hospital, Royal North Shore Hospital.

Each relevant Area Health Service provided contact details for the specialty in the hospitals selected for a site visit.

4.2 Pre-visit meeting

Not all hospitals in the study were represented on the project steering committee. A pre-visit meeting was therefore scheduled with the head of the specialty, to provide a background to the project, outline the project process and confirm commitment to participate.

Prior to each site visit, hospitals were required to provide a list of information (Appendix 3), and arrange for the completion of a staff survey (Appendix 4), by a cross section of staff involved in the discharge of patients within the specialty.

Medical staffing and resources information was to be used to compare staffing levels within the specialty for peer group hospitals. Information requested included:

- health information exchange codes and name of medical staff in specialty
- health information exchange codes for wards that are considered to belong to the specialty
- seasonal adjustments/variation to nominated beds for the specialty
- a copy of the roster of junior medical staff and registrar for the specialty
- a copy of the hospital out of hours roster for junior medical and registrar staff for term 1, in 2003
- a copy of the unrostered weekend overtime claims for medical staff for January, February and March 2003
- a copy of the specialist on call roster/arrangements for the specialty for February and March 2003
- time and medical staffing of outpatient clinics on Mondays.

The staff questionnaire sought comment on staff perception of the most significant factors either limiting or facilitating discharge, and their views on the value of specific strategies to improve discharge on weekend. The results were used to facilitate focused discussion during site visits.

4.3 Data analyses prior to each site visit

The project team prepared reports on the pattern of discharge for the specialty by each AMO for each hospital to be visited. The indicators used for each AMO were:

- average length of stay
- average patient age
- discharge rate for each day of the week
- time of discharge on Mondays and Tuesdays.

Peer group hospital averages (principal referral and major metropolitan hospital groups) were used for analyses. The pre-visit information was also used to analyse the number of ward outliers and bed days of outliers within the specialty.

4.4 Site visit program

A suggested program (Appendix 5), for a site visit was provided to each hospital. Sites were given the opportunity to modify the program to include all appropriate staff in the process and best meet time commitments of participating staff. Based on the key issues identified by the steering committee and literature review, an interview checklist (Appendix 6), was developed to facilitate discussion and interviews during the site visit.

The program consisted of:

- orientation or interviews with senior executive members to outline the purpose of the project and the structure of the site visit
- a two-hour workshop with a cross section of staff from the specialty and hospital who were involved in discharging processes. These included the after hours manager, head of specialty, nurse unit manager, patient flow manager, discharge planner, registrar, clinical coordinator and ward clerk. The workshop was structured to obtain detailed information on the processes in planning for discharge, decision to discharge and post discharge decision processes
- interviews with key staff from support services associated with the discharge process. These included the head of pharmacy services, head of diagnostics (pathology and imaging). Interviews were also held with the head and/or nurse unit manager of Emergency Departments and staff members responsible for medical rostering.

5.1 Processes generally associated with higher rates of discharge on weekend

It was noted that the discharge of emergency overnight patients, which occurred on weekends, were largely patients who had been admitted prior to Friday afternoon.

Further with the improved processes established in the Emergency Department for assessment of clinically appropriate inpatient admissions, admitted patients were less likely to have on average a Length Of Stay (LOS) of less than two days.

Irrespective of specialty or peer group, some or all of the following features characterized specialties with higher weekend discharge rates.

5.1.1 Discharge Planning

More frequent rounds during the week by the AMO – staff noted that rounds two or more times during the week enabled better planning, continuity of care and in some cases improved ALOS.

More than one case conference per week – the days of the week on which conferences occurred was also considered important in terms of planning for care and discharge. Tuesday, Wednesday and Thursday were the most common days. Only one hospital scheduled the case conference on Monday and no hospital visited had a case conference scheduled on a Friday.

Case conferences, which included all relevant nursing, allied health and medical staff – these specialties appeared to have better communication, teamwork and perceived an improved coordination of discharge planning.

Better systems for early identification of patients with complex discharge needs – risk assessment tools, flagging of patients on the Emergency Department Information System (EDIS) and communication protocols enabled earlier identification of these patients.

Better systems for identifying and communicating expected ALOS – the ALOS for particular Diagnosis Related Group (DRG) is provided to the ward. However ward staff have difficulty relating DRG to diagnosis. The casemix unit of a hospital has undertaken mapping of diagnosis to DRG to enable staff to better estimate the patient's length of stay. Many hospitals also provide individual medical staff with the ALOS of their patients.

A nurse unit manager who is perceived as providing strong leadership in facilitating discussion with medical staff on potential discharges – these managers were characterised as being proactive and involved in expediting appropriate discharges in a timely manner. They were perceived as good managers by medical, allied health and nursing staff.

Good teamwork expressed in communication, strong leadership from senior clinicians – these were evident by attendance of the AMO at case conferences, active participation and support by the AMO in hospital and specialty initiatives for improving practices and processes.

5.1.2 Decision to discharge

Better delegations/authority to the registrar for discharge – the delegations in many cases were protocol specific. A supportive medical team, experience and confidence of the registrar also affected the extent of delegations and willingness of the registrar to exercise delegated authority to discharge.

Registrar cover for the specialty on weekends – hospitals which provided some specialty registrar cover on weekends, enabled improved continuity of care for patients. Registrars were more familiar with patients and more likely to consider an appropriate discharge on the weekend.

AMOs who did rounds on at least one day on the weekend – while several hospitals noted that the on call AMO would see all new admissions within 24 hours, discharge rates were higher when the AMO did a round on Saturday.

5.1.3 Post-decision to discharge

Progressive discharge summaries by which medical staff progressively document the medical care planned after discharge of the patient – junior medical staff usually prepare discharge summaries. Progressive discharge summaries reduce delays following the decision to discharge

5.2 Processes associated with higher rates of discharge on weekend for each specialty examined

5.2.1 Aged care

Good systems and relations between residential aged care facilities and the hospital – several hospitals reported meeting regularly with the directors of nursing of aged care facilities in their area to formally discuss and address issues of concern for all stakeholders. Senior clinicians would if necessary contact facilities to negotiate a discharge. Good communications and networks with general practitioners were also seen as facilitating discharge on weekend.

Service has a policy that all senior appointments have dual specialty – aged care patients typically have multiple conditions, which can be addressed by the aged care clinician rather than awaiting a consultation from another specialty physician.

Allied health staff allocated to the specialty or specialty ward – allied health staff developed specialist skills and better networks within the specialty and with external services.

5.2.2 Cardiology

Access to routine angiography on Friday – this is significant in enabling discharge on Saturday, as a considerable number of patients following an angiography may be appropriate for discharge. However, this needs to be complemented by AMO rounds on Saturday to review results and make decision to discharge.

5.2.3 General medicine

No apparent specialty specific processes.

5.2.4 Respiratory

Only one site was visited and there was no clear indication of specialty specific processes.

5.3 Factors limiting but not preventing discharge on weekend

Access to imaging services – generally it was noted that these services were more crucial for treatment decisions rather than being a critical decision to discharge. Reduced access to this service was not a major factor preventing discharge on weekends.

Access to pharmacy services – this varied from an on call service only to services provided on both Saturday and Sunday. However, all sites noted that access to external prescriptions enabled planned discharges to occur on the weekend.

Access to pathology services – all hospitals had 24 hour access to routine pathology. Pathology services were not considered in many cases to be a significant factor for preventing discharges on the weekend.

Transit or discharge lounge – use of this service during the week was variable and highly related to its proximity to the ward. This service was not available on weekends in any of the hospitals. More frequently it was used for patients awaiting transport for tests or transfer to other facilities.

Access to transport services – all hospitals noted the Friday 12 midday cutoff for central district ambulance service bookings for planned discharges on weekend.

5.4 Earlier discharge on Monday

Generally higher rates of discharge occurred after 2pm on Monday. Factors that were identified as contributing to this included:

- priority on Monday morning was to see sicker patients and new admissions which results in patients for discharge being seen later and consequently decision to discharge being made later
- discharge summaries and prescriptions are completed at the end of the ward round which results in further delays in the time of discharge
- pharmacy services noted there were often significant delays between writing of the discharge prescription and the request being received by pharmacy. Ward staff on the other hand often cited delays in receiving medication as the reason for later discharges

- preparation for Monday discharges was less likely to have been planned on the previous Friday. Consequently patients ready for discharge on Monday may be delayed considerably while post-discharge decision arrangements are made.

5.5 Initiatives to improve patient flow and access

Shared care program – in which elderly patients who are acutely ill are admitted under the appropriate specialty and their care jointly managed by the physician and aged care team, which includes a geriatrician.

Discharge planner – rostered for Saturday morning.

Specialty registrars – rostered on Saturday for discharging patients.

In only one hospital did the majority of AMOs do a Saturday round – the purpose was to review results of the diagnostic test which was done on several patients on Friday. This round was associated with a high percentage of patients being discharged. Three specialty registrars were also rostered on Saturday to finalise discharges.

Seven-day service – this reduced length of stay but not discharges on weekends.

Pre-packed meals – available on weekends. This was proven not to be the barrier for weekend discharge, as patients who were often mobile enough and had the required support services were able to access meals on weekends.

Service level agreements – with residential aged care facilities for acceptance of patients requiring intravenous antibiotics where the hospital provides resources and training to nursing staff at the residential aged care facility.

Quick response program – includes allied health, nursing and medical staff to assess and treat patients in the Emergency Department to prevent admission or achieve an earlier discharge.

Bed managers – have 2 shifts daily from 7am to 4pm and 4pm to 10.30pm. The bed manager is available from 9am to 3.30pm on weekends.

Post Acute Care Services (PACS) – provide short-term care for patients discharged prior to community services commencing.

Extra radiology team – appointed during winter.

Rehabilitation discharge team – provides short-term care for patients discharged prior to community services commencing.

5.6 Innovative processes

There were several hospitals, which irrespective of their discharge rate on the weekend had innovative processes not identified in any of the other hospitals visited. These included:

- ward is provided with a patient list by the casemix unit that includes the Average Length Of Stay (ALOS) for the DRG and of patient's under each AMO. The intent is that the AMO would monitor their individual data but also provide opportunity for identifying differences in practice (not patients) which maybe contributing to differences in ALOS
- all patients with a Length Of Stay (LOS) 10 days longer than the average for the DRG are flagged to the bed manager who investigates these further. Identifying these patients provides opportunity to initiate discussion and focus efforts on determining and addressing, where possible, causes for the extended length of stay
- patients for discharge are coded for those expected to be discharged on the day as well as coded for those expected to be discharged on the following day, and variance monitored. Flagging discharges in the next 24 hours as opposed to 12 hours compels a more active consideration and communication of these discharges. This information provides bed managers with better capacity to project bed availability
- pharmacy accepts faxed prescriptions to give better lead-time for preparing medication for dispensing on sighting of original
- a pharmacy service dispenses inpatient medications to minimize medication errors
- a pharmacy service has a priority scheduling and tracking system for dispensing medications. All requests are sorted by the time by which they need to be dispensed. Colour coded baskets enable the chief pharmacist to identify at a glance backlogs and demand

- integrated discharge summary with discharge prescriptions aims to reduce adverse events, improve accuracy and reduce dispensing time. Pharmacist is able to review the medications prescribed in the context of the information provided on the discharge summary. This reduces the time required to follow-up any queries with medical staff
- a visiting medical officer who discharges a patient and treats them within two weeks as an outpatient in the endoscopy clinic is provided with extra endoscopy session. This provides an incentive to minimise inappropriate longer LOS
- patient information brochure advises patients to request a discharge date from their doctor. This further encourages estimation and communication of an expected date of discharge
- an integrated discharge screening/risk assessment tool that also incorporates an occupational health and safety risk assessment. This reduces duplication of work and supports the integration of systems in providing health care.

Issues and discussion

6.1 Data quality

Following the first pre-visit meeting feedback was received from sites visited regarding the data on discharge rates in hospitals by AMO. Some noted that:

- the report did not include all the AMOs in the specialty
- some AMOs covered more than one specialty
- the single weekend discharge rate did not provide sufficient information to assess differences between Saturday and Sunday rates
- the analysis of discharge by time of day on Monday and Tuesday did not clarify whether this referred to the percentage of all discharges for the week made on Monday and Tuesday, or specifically the percentage of discharges made only on Monday and Tuesday respectively
- analysis of the rate of discharge for each day of the week by AMO and hospital would be useful.

This feedback was incorporated into the revised reports available to hospitals at site visits.

Corrections to AMO and specialty codes resulted in the following changes in the rate of discharge on the weekend.

Hospital	Specialty	Original weekend rate	Revised weekend rate
Westmead	Respiratory	6.5%	7.3%
RNSH	Respiratory	15.1%	15.8%
Wollongong	Cardiology	8.5%	12.6%
RPAH	Cardiology	18.5%	18.5%
St. George	Aged care	11.1%	11.1%
Sutherland	Aged care	Not known	11.1%
Hornsby	Aged care	14.4%	6.8%
Gosford	General medicine	16.2%	11%
Blacktown	General medicine	22.2%	25.4%
Fairfield	General medicine	10.3%	10.3%

Correct AMO codes are the responsibility of Patient Administration System (PAS) administrators at each hospital. Where an AMO admits under several specialties the PAS system will require separate AMO codes to differentiate these specialties.

6.2 Medical staffing

Based on the information provided by hospitals, it was not possible to accurately analyse medical staffing levels for valid comparisons. Factors limiting this analysis included:

- admitting medical officers covered more than one specialty
- the after hours medical cover was variable, with some based on all of hospital, some on clinical streams or divisions and some by specialty.

6.3 Specialty patient profile

The viability of general medicine as a 'specialty' was being seriously considered by all hospitals. Availability of general physicians, general medicine registrars and the casemix of patients, have led to hospitals considering restructuring around sub-specialties.

6.4 Relationship between the bed manager and discharge planner

Hospitals showed variation in the role and function of these positions as well as their relationship to each other in managing patient flow. It was not possible to examine in depth the effect of this variation on discharge rates for weekends and is a matter worthy of further investigation.

6.5 Access to hospital and casemix data

Estimating date of discharge was frequently identified as too imprecise and variable to be useful for discharge planning. Access on the ALOS for specific DRGs while valuable, was not practical in assisting in estimating a date of discharge at the early diagnosis stage of an admission. There is therefore an opportunity for improved access to appropriate casemix data in estimating date of discharge.

6.6 Access to residential aged care facilities

Access to residential aged care facilities was a significant block to discharge on any day of the week for all specialties, with a higher proportion of elderly patients. Waiting lists were as high as 60 with waiting times of up to several months. Individual hospitals have limited or no influence on the bed availability and for some specialties this represents a significant block in patient flow for a proportion of patients.

6.7 Access to community services

Access to community services is generally not available for new patients discharged on weekends.

Conclusions

- An increase in discharges on weekends represents one of several strategies that may be implemented to improve inpatient flow and consequently availability of beds.
- This project has identified both generic and specialty-specific practices and processes associated with better rates of discharge on weekend. Achieving improvements requires strong leadership in the structural, cultural and process changes required.
- A sustained improvement in available beds requires a balanced, holistic approach, which incorporates efforts at managing patient flow through Emergency Departments, managing inpatient flow through the hospital and managing external factors which reduce or limit the capacity to discharge.

Recommendation 1

The project report will be distributed to all Area Health Services and specifically to the hospitals which participated in the project.

Recommendation 2

The outcomes of this project are made available to the Institute of Clinical Excellence for inclusion in the Patient Flow and Safety Collaborative to specifically progress the implementation of the processes associated with higher weekend discharge identified in this project.

Recommendation 3

NSW Health provides reports for each Area Health Service on daily discharge rates in the specialties of aged care, cardiology, general medicine, and respiratory by hospital and de-identified clinician data.

Recommendation 4

Discharge rates and practices of the hospitals participating in this project be reviewed in nine months to identify improvements facilitated through participation in this project.

Recommendation 5

Hospitals in NSW, particularly principal referral and major metropolitan hospitals, review and where appropriate implement the strategies listed:

Staffing

- Admitting medical officers to make three or more rounds during the week and at least one round on the weekend.
- Greater delegations/authority for discharge given to the registrar.
- Registrar cover provided for the specialty on weekends.
- Bed manager available during Monday to Friday 8am to 4.30pm, outside these hours and on weekends.
- Discharge planner rostered for Saturday morning.

Risk assessment

- Use Emergency Department Information System (EDIS) to flag patients with frequent presentations and/or complex discharge needs.
- Provide information to ward staff on diagnosis mapped to Diagnosis Related Group (DRG) and to facilitate better estimation of expected length of stay.
- Use an integrated discharge screening/risk assessment tool that incorporates an occupational health and safety risk assessment.
- A quick response program that includes allied health, nursing and medical staff.

Estimated date of discharge

- Patient information brochure advises patients to request a discharge date from their doctor.
- Patients for discharge are coded: those expected to be discharged on the day, and those expected to be discharged on the following day, and the variance is monitored.

Referrals

- Protocol based referral systems to allied health for assessments and discharge planning.
- Allied health staff are allocated to the specialty or specialty ward.

Teamwork

- More than one case conference per week, which includes all relevant, nursing, allied health and medical staff.
- Nurse unit managers who are perceived as providing strong leadership to facilitate discussion with medical staff on potential discharges.
- Clinical nurse consultant sees outliers to facilitate discharge.
- Regular meetings are held with all directors of nursing of the residential aged care facilities in the area.
- Shared care by the physician and geriatrician for elderly patients.
- Service level agreements with residential aged care facilities for acceptance of patients requiring intravenous antibiotics, where the hospital provides resources and training to nursing staff at the residential aged care facility.

Services

- Extra radiology team during the winter period.
- Post Acute Care Services (PACS) and rehabilitation discharge team provides short-term care for patients discharged prior to community services commencing.
- Admitting Medical Officer (AMO) who discharges a patient and treats them within two weeks as an outpatient provided with an extra endoscopy session.

Medications

- Pharmacy service dispenses inpatient medications to minimize medication errors.
- Pharmacy service has a priority scheduling and tracking system for dispensing medications.
- Pharmacy accepts faxed prescriptions to give better lead-time for preparing medication for dispensing on sighting of original.
- Integrated discharge summary with discharge prescriptions to reduce adverse events, improve accuracy and reduce dispensing time.

Discharge summary

- Discharge summaries written progressively.

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Appendices

Appendix 1

Discharge rates in principal referral hospitals.

- Comparison for general medicine overnight emergency patients 2001/02
- Comparison for cardiology medicine overnight emergency patients 2001/02
- Comparison for respiratory medicine overnight emergency patients 2001/02
- Comparison for geriatric medicine overnight emergency patients 2001/02

Appendix 2

Discharge rates in major metropolitan hospitals.

- Comparison for general medicine overnight emergency patients 2001/02
- Comparison for cardiology medicine overnight emergency patients 2001/02
- Comparison for respiratory medicine overnight emergency patients 2001/02
- Comparison for geriatric medicine overnight emergency patients 2001/02

Appendix 3

Checklist.

Appendix 4

Staff questionnaire.

Appendix 5

Proposed program for site visits.

Appendix 6

Interview checklist.

Appendix 7

Individual site visit reports – matrix of findings.

Appendix 1 Discharge rates in principal referral hospitals

A1 Hospitals: Comparison for general medicine overnight emergency patients 2001-02

Hospital	No of discharges	Friday discharge rate (%)	Weekend discharge rate (%)	Sunday discharge rate (%)	Overnight emergency readmission rate (%) (>4 hrs but within 28 days)	Breakdown of Monday discharge (%)				Breakdown of Tuesday discharge (%)				% of admitted ED patients with access block (>8hrs)		
						before 8am	8am-11am	11am-2pm	2pm-5pm	after 5pm	before 8am	8am-11am	11am-2pm		2pm-5pm	after 5pm
Royal Prince Alfred Hospital	514	24.3	12.1	4.7	13.2		5.0	20.0	51.3	23.8	2.6	9.0	30.8	34.6	23.1	48.0
St Vincent's Hospital	0	.	.	.	.		.	.	.	.	.	.	.	.	.	.
Concord Hospital	441	19.7	11.6	1.4	10.4		3.8	25.0	36.5	34.6	2.8	7.4	28.7	43.5	17.6	37.3
Gosford Hospital	551	18.5	16.2	5.1	9.6		5.1	16.2	39.3	37.6		11.9	36.9	38.1	13.1	21.5
Royal North Shore Hospital	571	22.8	11.2	4.0	6.0		5.8	20.9	46.5	25.6		19.6	29.3	31.5	19.6	62.5
Prince of Wales Hospital	180	18.9	11.7	6.7	18.9		8.3	36.1	44.4	8.3	3.4	20.7	27.6	24.1	24.1	39.1
St George Hospital	0	.	.	.	.		.	.	.	.	.	.	.	.	.	.
Liverpool Hospital	2,916	21.7	9.3	3.2	10.0		4.5	23.4	46.3	23.6	2.0	8.1	30.4	34.5	25.0	27.2
Nepean Hospital	4,020	21.4	12.5	5.3	14.6		6.4	30.7	44.6	16.2	2.2	12.1	33.4	37.2	15.1	63.9
Westmead Hospital	0	.	.	.	.		.	.	.	.	.	.	.	.	.	.
Bankstown Hospital	62	22.6	12.9	6.5	8.1		.	80.0	20.0	.	14.3	21.4	21.4	35.7	7.1	41.7
Wollongong Hospital	3,133	21.6	13.2	5.6	9.7		10.0	27.0	35.8	24.3	2.1	11.3	30.7	32.0	23.9	53.7
John Hunter Hospital	1,056	18.0	12.1	5.0	8.9		9.0	31.9	36.1	21.7	4.4	10.3	28.9	34.3	22.1	61.2

Note: Access block = Difference between first seen by clinical staff and actual departure from Emergency Department.

Data source: NSW Inpatient Statistics Collection (ISC) & NSW Emergency Departments Information System (EDIS), Health Information Exchange (HIE).

Appendix 1

A1 Hospitals: Comparison for cardiology medicine overnight emergency patients 2001-02

Hospital	No of discharges	Friday discharge rate (%)	Weekend discharge rate (%)	Sunday discharge rate (%)	Overnight emergency readmission rate (%) (>4 hrs but within 28 days)	Breakdown of Monday discharge (%)				Breakdown of Tuesday discharge (%)				% of admitted ED patients with access block (>8hrs)		
						before 8am	8am-11am	11am-2pm	2pm-5pm	after 5pm	before 8am	8am-11am	11am-2pm		2pm-5pm	after 5pm
Royal Prince Alfred Hospital	2,068	18.8	18.5	3.6	7.3	3.9	4.3	24.3	39.2	28.2	2.1	15.3	35.6	24.3	22.8	46.8
St. Vincent's Hospital	1,569	19.2	17.0	6.0	6.0	4.1	9.5	20.7	42.0	23.7	1.8	8.7	33.3	41.7	14.5	44.0
Concord Hospital	1,289	20.1	10.7	3.6	10.7	0.5	3.1	22.5	46.6	27.2	3.6	3.6	30.0	39.2	23.6	43.2
Gosford Hospital	1,516	17.8	14.4	6.3	10.7	1.7	11.7	23.4	41.0	22.1	1.2	17.4	26.7	40.1	14.6	16.3
Royal North Shore Hospital	2,224	20.6	17.6	4.7	8.0	2.0	6.7	29.0	38.0	24.3	1.9	11.3	32.6	35.6	18.5	43.2
Prince of Wales Hospital	1,528	18.8	15.9	6.1	8.8	0.9	5.7	26.4	41.4	25.6	1.2	7.4	32.5	40.7	18.1	44.8
St. George Hospital	1,782	19.5	13.2	3.9	10.1	0.4	10.1	37.2	33.9	18.4	1.3	16.6	37.1	28.1	16.9	47.8
Liverpool Hospital	1,343	21.1	10.1	3.5	8.2	1.0	5.1	31.8	37.9	24.1	1.7	8.8	30.7	33.6	25.2	29.0
Nepean Hospital	708	19.1	16.7	7.8	8.5	1.0	7.1	28.6	46.9	16.3	2.5	12.7	33.9	33.9	16.9	59.6
Westmead Hospital	2,381	20.4	11.8	3.4	9.9	0.3	6.0	19.1	39.7	34.9	1.5	10.4	22.8	34.7	30.7	58.3
Bankstown Hospital	1,631	22.5	10.2	3.7	9.7	1.9	10.1	35.1	34.7	18.3	3.2	12.0	32.0	29.9	22.9	35.4
Wollongong Hospital	177	27.7	8.5	2.8	10.2	.	24.0	12.0	48.0	16.0	.	16.2	40.5	35.1	8.1	36.5
John Hunter Hospital	1,630	18.7	16.9	6.4	8.3	0.9	4.8	33.3	42.9	18.2	0.7	7.5	38.1	37.0	16.7	42.0

Note: Access block = Difference between first seen by clinical staff and actual departure from Emergency Department.

Data source: NSW Inpatient Statistics Collection (ISC) & NSW Emergency Departments Information System (EDIS), Health Information Exchange (HIE).

Appendix 1

A1 Hospitals: Comparison for respiratory medicine overnight emergency patients 2001-02

Hospital	No of discharges	Friday discharge rate (%)	Weekend discharge rate (%)	Sunday discharge rate (%)	Overnight emergency readmission rate (%) (>4 hrs but within 28 days)	Breakdown of Monday discharge (%)				Breakdown of Tuesday discharge (%)				% of admitted ED patients with access block (>8hrs)		
						before 8am	8am-11am	11am-2pm	2pm-5pm	after 5pm	before 8am	8am-11am	11am-2pm		2pm-5pm	after 5pm
Royal Prince Alfred Hospital	1,289	20.5	11.2	3.5	12.3	1.5	5.9	31.7	44.9	16.1	0.8	8.7	32.0	39.8	18.7	44.8
St. Vincent's Hospital	559	24.2	11.6	3.2	10.6	2.2	2.2	21.1	45.6	28.9	3.8	12.5	43.8	31.3	8.8	73.0
Concord Hospital	783	20.9	9.1	2.4	11.5	2.7	3.4	26.2	45.0	22.8	2.7	12.8	30.9	40.9	12.8	25.2
Gosford Hospital	1,437	22.0	9.2	2.6	12.0	1.8	3.7	18.8	44.5	31.3	0.8	5.2	28.8	43.6	21.6	16.2
Royal North Shore Hospital	683	21.5	15.1	4.4	9.1	1.7	10.8	34.2	42.5	10.8	2.1	14.9	36.2	33.0	13.8	52.4
Prince of Wales Hospital	1,238	21.3	10.9	3.1	11.0	1.5	2.0	24.0	41.7	30.9	1.8	6.8	35.7	32.6	23.1	78.5
St. George Hospital	1,496	20.7	12.8	6.4	13.4	3.1	19.7	37.5	32.4	7.3	0.8	32.6	38.8	21.9	5.8	66.2
Liverpool Hospital	140	16.4	10.0	2.1	21.4	.	16.0	16.0	48.0	20.0	4.3	21.7	17.4	26.1	30.4	17.6
Nepean Hospital	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Westmead Hospital	992	21.0	6.5	3.6	11.7	2.5	4.3	18.6	44.1	30.4	3.1	4.6	22.7	38.1	31.4	47.1
Bankstown Hospital	950	21.2	7.5	2.1	9.9	1.7	0.6	30.0	42.8	25.0	0.6	4.7	27.6	32.4	34.7	24.5
Wollongong Hospital	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
John Hunter Hospital	814	20.4	13.9	5.9	12.2	0.8	2.3	29.8	41.2	26.0	3.9	9.8	27.5	41.2	17.6	46.5

Note: Access block = Difference between first seen by clinical staff and actual departure from Emergency Department.

Data source: NSW Inpatient Statistics Collection (ISC) & NSW Emergency Departments Information System (EDIS), Health Information Exchange (HIE).

Appendix 1

A1 Hospitals: Comparison for geriatric medicine overnight emergency patients 2001-02

Hospital	No of discharges	Friday discharge rate (%)	Weekend discharge rate (%)	Sunday discharge rate (%)	Overnight emergency readmission rate (>4 hrs but within 28 days)	Breakdown of Monday discharge (%)				Breakdown of Tuesday discharge (%)				% of admitted ED patients with access block (>8hrs)		
						before 8am	8am-11am	11am-2pm	2pm-5pm	after 5pm	before 8am	8am-11am	11am-2pm		2pm-5pm	after 5pm
Royal Prince Alfred Hospital	1,132	20.1	9.7	2.9	13.7	3.9	9.4	22.1	33.1	31.5	4.7	16.2	37.2	27.2	14.7	56.6
St. Vincent's Hospital	735	22.3	8.4	2.3	9.1	7.8	12.2	29.6	32.2	18.3	3.9	18.9	34.6	34.6	7.9	85.9
Concord Hospital	1,094	24.0	8.9	3.4	11.3	4.1	6.8	31.3	38.8	19.0	2.1	14.7	38.9	31.1	13.2	37.7
Gosford Hospital	666	18.3	11.9	3.3	17.1	3.1	5.2	12.5	47.9	31.3	3.8	8.7	20.2	43.3	24.0	22.7
Royal North Shore Hospital	1,464	20.8	11.7	4.3	9.2	4.9	21.1	34.5	27.8	11.7	2.0	25.3	44.2	20.5	8.0	69.4
Prince of Wales Hospital	1,129	19.9	7.1	2.5	15.6	4.9	16.7	36.4	25.3	16.7	2.8	13.4	40.6	29.0	14.3	87.5
St. George Hospital	1,182	20.7	11.1	4.5	13.8	3.8	21.7	42.7	24.2	7.6	4.0	31.0	35.5	25.5	4.0	84.6
Liverpool Hospital	327	18.3	9.2	1.8	12.2	1.5	10.4	43.3	31.3	13.4	3.5	7.0	36.8	43.9	8.8	28.0
Nepean Hospital	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Westmead Hospital	1,212	23.3	7.3	2.6	10.6	6.4	7.9	25.7	43.6	16.4	2.5	6.7	34.6	43.8	12.5	56.2
Bankstown Hospital	1,132	24.0	8.6	2.5	9.3	8.1	8.1	35.3	37.0	11.6	3.1	23.1	37.3	26.2	10.2	28.6
Wollongong Hospital	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
John Hunter Hospital	193	16.1	3.6	1.6	7.8	.	25.7	28.6	40.0	5.7	2.5	27.5	47.5	17.5	5.0	47.7

Note: Access block = Difference between first seen by clinical staff and actual departure from Emergency Department.
Data source: NSW Inpatient Statistics Collection (ISC) & NSW Emergency Departments Information System (EDIS), Health Information Exchange (HIE).

Appendix 2 Discharge rates in major metropolitan hospitals

B1 Hospitals: Comparison for general medicine overnight emergency patients 2001-02

Hospital	No of discharges	Friday discharge rate (%)	Weekend discharge rate (%)	Sunday discharge rate (%)	Overnight emergency readmission rate (%) (>4 hrs but within 28 days)	Breakdown of Monday discharge (%)				Breakdown of Tuesday discharge (%)				% of admitted ED patients with access block (>8hrs)		
						before 8am	8am-11am	11am-2pm	2pm-5pm	after 5pm	before 8am	8am-11am	11am-2pm		2pm-5pm	after 5pm
Canterbury Hospital	2,567	17.2	18.8	10.2	11.0	18.4	18.6	31.0	20.6	11.4	15.8	18.0	32.6	25.2	8.4	17.3
Wyong Hospital	496	20.4	12.3	5.0	17.3	3.1	5.1	31.6	48.0	12.2	2.9	24.3	34.3	32.9	5.7	19.4
Hornsby Hospital	569	20.6	12.5	3.2	12.1	3.4	13.5	28.1	39.3	15.7	3.1	15.3	33.7	36.7	11.2	53.9
Manly Hospital	2,499	19.6	14.2	5.5	13.4	2.0	11.4	36.3	35.9	14.3	2.6	16.5	29.2	38.8	12.9	45.7
Mona Vale Hospital	2,234	19.3	14.3	4.8	11.7	4.2	10.1	36.0	32.7	17.0	2.5	17.1	36.9	28.4	15.1	42.8
Ryde Hospital	2,709	19.5	13.7	5.4	11.6	3.8	9.7	29.1	38.2	19.2	2.8	14.0	31.8	35.3	16.2	31.8
Sutherland Hospital	1,585	21.0	11.7	4.3	13.4	1.8	7.7	28.8	43.5	18.1	2.3	15.1	31.0	31.8	19.8	54.1
Auburn Hospital	2,677	20.5	14.4	5.5	11.2	11.4	18.2	28.5	27.6	14.3	15.4	15.4	25.4	29.7	14.1	12.8
Blacktown Hospital	458	18.8	10.0	3.7	18.6	3.8	2.5	27.5	45.0	21.3	2.6	6.4	32.1	30.8	28.2	59.3
Fairfield Hospital	2,448	22.7	10.3	3.4	12.0	1.5	4.7	26.8	46.4	20.6	2.9	10.0	26.0	42.5	18.7	24.4
Campbelltown Hospital	3,592	18.5	17.4	8.2	12.4	6.4	11.8	28.1	32.5	21.2	7.5	13.4	29.3	34.1	15.6	18.6
Mt. Druitt Hospital	3,613	16.6	19.3	8.0	15.8	32.7	9.8	17.8	22.0	17.6	28.1	12.4	18.4	23.6	17.6	9.2

Note: Access block = Difference between first seen by clinical staff and actual departure from Emergency Department.

Speciality = Local speciality based on the service provided by clinician (AMO code).

* Local Speciality based on AMO code were not provided

Data source: NSW Inpatient Statistics Collection (ISC) & NSW Emergency Departments Information System (EDIS), Health Information Exchange (HIE).

Appendix 2

B1 Hospitals: Comparison for cardiology medicine overnight emergency patients 2001-02

Hospital	No of discharges	Friday discharge rate (%)	Weekend discharge rate (%)	Sunday discharge rate (%)	Overnight emergency readmission rate (>4 hrs but within 28 days)	Breakdown of Monday discharge (%)				Breakdown of Tuesday discharge (%)				% of admitted ED patients with access block (>8hrs)	
						before 8am	8am-11am	11am-2pm	2pm-5pm	after 5pm	before 8am	8am-11am	11am-2pm		2pm-5pm
Canterbury Hospital	10	10.0			10.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	50.0	60.0
Wyong Hospital	359	21.7	14.8	5.8	13.4	1.8	3.6	17.9	48.2	28.6	0.0	9.4	34.4	43.8	23.8
Hornsby Hospital	363	20.4	15.4	4.1	8.3	0.0	10.0	28.0	36.0	26.0	1.5	19.4	25.4	38.8	51.2
Manly Hospital	*														
Mona Vale Hospital	*														
Ryde Hospital	*														
Sutherland Hospital	817	18.5	17.0	7.6	11.8	1.9	9.6	39.4	28.8	20.2	0.0	20.4	38.0	29.6	38.6
Auburn Hospital	20	5.0	35.0	15.0	5.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	50.0	25.0	9.5
Blacktown Hospital	1,134	21.3	7.1	2.2	15.6	1.7	3.9	14.0	48.6	31.8	1.0	17.1	27.1	30.2	46.7
Fairfield Hospital	36	13.9	13.9	5.6	19.4	0.0	100.0	0.0	0.0	0.0	0.0	25.0	33.3	16.7	29.7
Campbelltown Hospital	6	33.3			16.7						0.0	0.0	66.7	33.3	16.7
Mt. Druitt Hospital	1,031	20.5	8.3	3.9	16.3	1.9	13.6	21.6	34.0	29.0	5.3	15.8	25.8	30.0	49.1

Note: Access block = Difference between first seen by clinical staff and actual departure from Emergency Department.

Speciality = Local speciality based on the service provided by clinician (AMO code).

* Local Speciality based on AMO code were not provided

Data source: NSW Inpatient Statistics Collection (ISC) & NSW Emergency Departments Information System (EDIS), Health Information Exchange (HIE).

Appendix 2

B1 Hospitals: Comparison for respiratory medicine overnight emergency patients 2001-02

Hospital	No of discharges	Friday discharge rate (%)	Weekend discharge rate (%)	Sunday discharge rate (%)	Overnight emergency readmission rate (>4 hrs but within 28 days)	Breakdown of Monday discharge (%)				Breakdown of Tuesday discharge (%)				% of admitted ED patients with access block (>8hrs)		
						before 8am	8am-11am	11am-2pm	2pm-5pm	after 5pm	before 8am	8am-11am	11am-2pm		2pm-5pm	after 5pm
Canterbury Hospital	721	16.1	16.5	7.2	13.7	1.5	10.8	36.2	34.6	16.9	0.9	12.0	45.3	29.1	12.8	47.2
Wyong Hospital	68	19.1	17.6	5.9	11.8	5.9	0.0	11.8	64.7	17.6	0.0	60.0	10.0	30.0	0.0	19.6
Hornsby Hospital	233	18.5	17.6	7.3	16.3	2.3	4.7	46.5	37.2	9.3	6.3	18.8	50.0	12.5	12.5	69.1
Manly Hospital	*															
Mona Vale Hospital	*															
Ryde Hospital	*															
Sutherland Hospital	541	19.8	10.2	3.1	14.2	0.0	3.4	30.2	47.4	19.0	3.2	10.6	34.0	38.3	13.8	52.3
Auburn Hospital	*															
Blacktown Hospital	491	24.8	7.5	1.6	16.3	3.4	2.2	24.7	41.6	28.1	0.0	6.3	25.0	42.5	26.3	58.1
Fairfield Hospital	*															
Campbelltown Hospital	*															
Mt. Druitt Hospital	*															

Note: Access block = Difference between first seen by clinical staff and actual departure from Emergency Department.

Speciality = Local speciality based on the service provided by clinician (AMO code).

* Local Speciality based on AMO code were not provided

Data source: NSW Inpatient Statistics Collection (ISC) & NSW Emergency Departments Information System (EDIS), Health Information Exchange (HIE).

Appendix 2

B1 Hospitals: Comparison for geriatric medicine overnight emergency patients 2001-02

Hospital	No of discharges	Friday discharge rate (%)	Weekend discharge rate (%)	Sunday discharge rate (%)	Overnight emergency readmission rate (%) (>4 hrs but within 28 days)	Breakdown of Monday discharge (%)				Breakdown of Tuesday discharge (%)				% of admitted ED patients with access block (>8hrs)		
						before 8am	8am-11am	11am-2pm	2pm-5pm	after 5pm	before 8am	8am-11am	11am-2pm		2pm-5pm	after 5pm
Canterbury Hospital	*															
Wyong Hospital	812	17.1	10.5	3.8	24.3	1.4	9.7	37.2	40.7	11.0	2.8	7.6	33.8	37.9	17.9	25.8
Hornsby Hospital	797	17.7	6.8	1.9	17.1	0.0	34.0	44.4	18.1	3.5	0.7	39.7	37.7	18.5	3.3	58.1
Manly Hospital	154	20.1	4.5	0.6	20.1	4.2	20.8	29.2	41.7	4.2	4.3	30.4	34.8	21.7	8.7	46.1
Mona Vale Hospital	*															
Ryde Hospital	225	24.9	3.6	1.3	15.6	0.0	11.1	58.3	27.8	2.8	0.0	12.8	53.2	31.9	2.1	35.4
Sutherland Hospital	471	22.1	11.0	2.8	20.2	5.3	6.6	28.9	43.4	15.8	1.2	16.7	44.0	28.6	9.5	57.9
Auburn Hospital	*															
Blacktown Hospital	527	21.1	7.6	3.6	19.7	0.0	14.0	32.6	27.9	25.6	2.2	7.6	34.8	31.5	23.9	60.3
Fairfield Hospital	*															
Campbelltown Hospital	58	6.9	0.0	0.0	27.6	0.0	0.0	50.0	50.0	0.0	0.0	33.3	50.0	8.3	8.3	28.6
Mt. Druitt Hospital	*															

Note: Access block = Difference between first seen by clinical staff and actual departure from Emergency Department.
 Speciality = Local speciality based on the service provided by clinician (AMO code).

* Local Speciality based on AMO code were not provided

Data source: NSW Inpatient Statistics Collection (ISC) & NSW Emergency Departments Information System (EDIS), Health Information Exchange (HIE).

Appendix 3

CHECKLIST – Checklist for information to be provided prior to site visit

Facility: _____

Specialist: _____

Contact name: _____

Contact No: _____

Email: _____

	Sent	If not sent, please comment
Health Information Exchange codes and name of medical staff in (speciality).	<input type="checkbox"/>	_____
Health Information Exchange codes for wards that are considered to belong to (speciality).	<input type="checkbox"/>	_____
Seasonal adjustments/variation to nominated beds for (speciality) for 2002.	<input type="checkbox"/>	_____
A copy of the roster of junior medical and registrar staff for (speciality) for term 1, 2003.	<input type="checkbox"/>	_____
A copy of the out of hours roster for junior medical and registrar staff for term 1, 2003 for the hospital.	<input type="checkbox"/>	_____
A copy of the unrostered weekend overtime claims for medical staff for January, February and March 2003.	<input type="checkbox"/>	_____
A copy of the specialist on call roster/arrangements for (speciality) for January, February and March 2003.	<input type="checkbox"/>	_____
Time and medical staffing of outpatient clinics on Mondays.	<input type="checkbox"/>	_____
Time and medical staffing of procedural sessions (if applicable).	<input type="checkbox"/>	_____
Specific diagnostic services managed by the department and their availability over 7 day week (stress tests, general function laboratory).	<input type="checkbox"/>	_____
Registrar/resident commitments to other services such as general or emergency on call duty.	<input type="checkbox"/>	_____

If you have any queries please contact Vijay Naidoo on 9391 9211 or at: vnaid@doh.health.nsw.gov.au

Please forward completed checklist and information to:
 Vijay Naidoo, Senior Performance Analyst
 Health System Performance Branch, NSW Health
 Level 5, 73 Miller St
 North Sydney NSW 2060

Appendix 4

STAFF QUESTIONNAIRE – Improving hospital access by increasing appropriate discharges of emergency overnight patients on weekends and Monday morning

Facility: _____		Speciality: _____	
Nursing: <input type="checkbox"/>	Allied Health: <input type="checkbox"/>	Bed Manager: <input type="checkbox"/>	Junior Medical Officer: <input type="checkbox"/>
Registrar: <input type="checkbox"/>	Staff specialist: <input type="checkbox"/>	Visiting Medical Officer: <input type="checkbox"/>	Other (specify): _____

Please rank the following in order of their impact on limiting or delaying the discharge of emergency overnight patients* at weekends or on Monday mornings. (1 = greatest impact / 7 = least impact)

* Emergency overnight patients are patients whose condition requires treatment within 24 hours and stay overnight in the hospital. They are not booked patients.

Discharge planning	Weekend	Monday am
Completion of discharge risk screening	<input type="checkbox"/>	<input type="checkbox"/>
Documentation of estimated date of discharge	<input type="checkbox"/>	<input type="checkbox"/>
Documentation of clinical care plan	<input type="checkbox"/>	<input type="checkbox"/>
Access to primary health services	<input type="checkbox"/>	<input type="checkbox"/>
Access to allied health services	<input type="checkbox"/>	<input type="checkbox"/>
Access to residential aged care facilities	<input type="checkbox"/>	<input type="checkbox"/>
Access to community support services (other than health services)	<input type="checkbox"/>	<input type="checkbox"/>
Discharge planning	Weekend	Monday am
Medical team handover	<input type="checkbox"/>	<input type="checkbox"/>
Availability of junior medical staff	<input type="checkbox"/>	<input type="checkbox"/>
Availability of consultant	<input type="checkbox"/>	<input type="checkbox"/>
Availability of registrars	<input type="checkbox"/>	<input type="checkbox"/>
Access to diagnostic services	<input type="checkbox"/>	<input type="checkbox"/>
Lack of shared medical discharge criteria	<input type="checkbox"/>	<input type="checkbox"/>
Delegation for discharge decision	<input type="checkbox"/>	<input type="checkbox"/>
Discharge planning	Weekend	Monday am
Time of day when decision to discharge is made	<input type="checkbox"/>	<input type="checkbox"/>
Discharge documentation	<input type="checkbox"/>	<input type="checkbox"/>
Access to pharmacy services	<input type="checkbox"/>	<input type="checkbox"/>
Availability of clerical support	<input type="checkbox"/>	<input type="checkbox"/>
Availability of family/carer	<input type="checkbox"/>	<input type="checkbox"/>
Availability of transport	<input type="checkbox"/>	<input type="checkbox"/>
Availability of transit lounge	<input type="checkbox"/>	<input type="checkbox"/>

Appendix 4

For each of the following statements please tick one of the boxes as it relates to *emergency overnight patients*

	please tick one box only			
	never	seldom	often	always
Discharge risk screening is undertaken	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The updated date of discharge is documented	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The clinical plan is well documented	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The discharge plan is well documented	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Senior medical staff have common agreed criteria and protocols for discharge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Weekend reviews by medical staff include those patients ready for discharge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Friday discharge rounds use multi-disciplinary teams to identify appropriate weekend discharges	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The discharge summary is completed on Friday for any potential weekend discharges	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Medication for discharge is arranged on weekends	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Primary health services is arranged on weekends	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Access to residential aged care facilities is arranged on weekends	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Community support services is arranged on weekends	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Allied health services is arranged on weekends	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transport is arranged for patients on weekends	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	please tick one box only	
	agree	disagree
A 7 day shift (<i>not overtime</i>) roster for junior medical and registrar staff is possible	<input type="checkbox"/>	<input type="checkbox"/>
Identifying patients on Sunday for discharge on Monday will facilitate earlier discharge on Monday	<input type="checkbox"/>	<input type="checkbox"/>
More patients can be discharged earlier on a Monday	<input type="checkbox"/>	<input type="checkbox"/>
Discharge protocols facilitate responsible delegation for discharge	<input type="checkbox"/>	<input type="checkbox"/>
Friday discharge rounds using multi-disciplinary teams provide an opportunity to better identify appropriate weekend discharges	<input type="checkbox"/>	<input type="checkbox"/>
Access to diagnostic services is easier as an inpatient	<input type="checkbox"/>	<input type="checkbox"/>

Thank you for taking the time to complete this questionnaire.

Please send completed form to _____ by _____

Appendix 5

Proposed program for site visits for weekend/Monday Discharge Project 2003.

Actual times to be decided at convenience of facility/speciality.

Day 1	Activity	Staff name and contact details	Additional information
am	<p>Meet senior executives with responsibility for patient flow, AHS contact to be advised/invited to attend (20 minutes)</p> <ul style="list-style-type: none"> • review project • review data • report on survey and medical staff analysis 		<p>Pre-site visit information needs to be sent to NSW Health a week before site visit for analysis to be discussed at this meeting</p>
	<p>Workshop (2 hours). Sketch out generic and speciality weekend and Monday discharge processes (10 minute break)</p> <ul style="list-style-type: none"> • after hours supervisor • discharge planner/liaison • Registrar • CNC/CNS for speciality • AMO for speciality • NUM for speciality • Allied health professional 		<ul style="list-style-type: none"> • facility discharge policy • speciality discharge checklist • protocols for discharge • clinical pathways
pm	<p>Meet with individual staff (20-30minutes)</p> <ul style="list-style-type: none"> • Director/Head of clinical department • Manager Diagnostics • Manager Pharmacy • Director/NUM emergency services • Registrar • Medical administration (staff rostering) 		<ul style="list-style-type: none"> • local data that identifies demand or unmet needs

Accommodation requirements:

1. Room for workshop – whiteboard, space for butchers paper and OHP required please.
2. Interviews preferably in areas where staff work.

Appendix 6

INTERVIEW CHECKLIST – Weekend/Monday discharge

Discharge issues	Yes/No or provide comments as appropriate			Is this a barrier to discharge			What can/has been done address this?		
	Sat	Sun	Mon	Sat	Sun	Mon	Sat	Sun	Mon
Service availability:									
• access to pharmacy									
• access to tests/diagnostic services									
• junior medical staff availability									
• consultant/registrar availability									
• transport availability									
• family availability									
• access to community health services									
• access to community support services									
Discharge planning and processes:									
• use of screening tools									
• estimating and communicating date of discharge to clinical team and relatives									
• documentation of clinical plan and shared among clinical team									
• use of delegation to discharge									
• use of protocol for shared/facilitated discharge criteria									
• Friday ward rounds conducted as clinical team									
• medical handover prior to weekend									
• frequency and time of the day of ward rounds									
• process used for resolving competing priorities of admitting new patients/ discharging patients									
• time of the day when decision to discharge is made									
• time of the day when clinical teams meet									
• ability to provide reports to consultants									
• delays in obtaining diagnostic results									
• use of transit lounges									
• other delays to patients leaving									

Appendix 7

Individual site visit reports – matrix of findings

Hospital	Hornsby-Kuringai Hospital	St George Hospital	Sutherland Hospital	Westmead Hospital
Speciality	Acute Care of Elderly (ACE)	Aged care	Aged care	Respiratory
Peer group	Major metropolitan	Principal referral	Major metropolitan	Principal referral
Sat/Sun discharge rate	4.9/1.9%	6.6/4.5%	8.3/2.8%	3.2/4.1
Infrastructure				
Ward	16-18 beds in the acute medical ward for ACE patients.	25 aged care beds	28 rehabilitation beds. 30 beds in 2 general medical wards.	12 respiratory beds.
Outliers	Winter period – generally 21-24 ACE patients within ward.	Generally 14 outliers. Winter period – generally 20 outliers.	Generally 12 outliers. Winter period – generally 30 outliers.	Generally 10 outliers. Winter period – generally 20 outliers.
AMO – contract	Staff specialist.	Fee for service. Staff specialist.	Staff specialists.	Sessional contracts. Staff specialists.
Medical roster	5 day roster for JMOs.	5 day roster for JMOs. 1 in 4 on call weekend roster for AMO.	5 day roster for JMOs. 1 in 5 on call weekend call roster for AMO.	5 day roster for JMOs. 1 in 5 on call w/ end roster for AMO. Respiratory registrar rostered for 4hrs on a Sunday morn.
Staffing				
Medical	0.4 FTE staff specialist. 1 FTE senior RMO.	1 VMO 2 FTE staff specialists. 3 FTE registrars. 3 FTE interns	3 FTE staff specialists. 3 FTE registrars. 1 FTE resident medical officer. 1 FTE intern.	2 VMOs. 3 FTE staff specialists. 3.5 FTE registrars. 1 FTE resident medical officer. 1 FTE intern.
Allied health	Allied health staff are ward based.	Allied health staff are ward based.	Allied health staff are ward based.	Allied health staff are allocated across specialities.
Nursing	Clinical coordinator. Clinical nurse consultant.	Clinical nurse coordinator. Clinical nurse consultant.	Clinical nurse consultant.	Clinical nurse consultant. Continuum of Care – CNC.
Discharge planning				
Case conference	Medical including geriatrician, nursing and allied health staff attend case conference each Monday.	Medical including AMO, nursing and allied health staff attend case conference each Tuesday and Thursday. General practitioner teleconference undertaken as required. Focus of Thursday case conference on potential weekend discharges.	Medical including AMO, nursing and allied health staff attend case conference each Tuesday or Wednesday for rehabilitation and aged care.	Medical, nursing and allied health staff attend case conference each Wednesday.
Estimated Date of Discharge (EDD)	No formal documentation of EDD. Little variance between expected and actual discharges.	No formal documentation of estimated date of discharge. Little variance between expected and actual discharges.	No formal documentation of EDD. Casemix provides patient list with est. ALOS based on DRG. to doctors and is available on ward. Approx 20% daily variance between expected and actual discharges.	Documented on discharge planning tool. Potential discharges for the day and next day placed on white board. Little variance between daily estimated and actual discharges.
Risk screening tool	Commences in the Emergency Department by the nursing staff and the ASET and completed in the ward by nursing staff.	Adapted state tool implemented only in the Emergency Department.	New tool integrated with OH&S tool presently being trialled.	Discharge planning tool completed by nursing staff.
Clinical pathways	Generally limited use of clinical pathways for aged care patients. CAL and stroke pathways used where appropriate.	Clinical pathways not considered appropriate for aged care patients.	Clinical pathways not considered appropriate for aged care patients.	Clinical pathways not considered appropriate for respiratory patients.
Role of NUM	Coordinates discharge plans with social worker.	NUM well supported by CNC and clinical nurse coordinator.	NUM provides leadership and is perceived as a facilitator for discharges.	Manages discharges through discharge tool and case conference.
Handover	Weekend discharge meeting on Friday afternoon for all medical teams.	Potential weekend discharges seen by aged care registrar Saturday and Sunday.	No formal medical handover of potential weekend discharges.	Registrars meet on Friday to discuss potential discharges with the allocated Sunday respiratory registrar.
Residential aged care	Access to low residential aged care and community aged care packages is a problem. 40 patients waiting for community aged care packages.	Approx 3-6 nursing home type patients waiting placement.	Regular meeting with DOMs of residential aged care facilities. 18-20 nursing home type patients waiting placement.	3 week waiting time for residential aged care.
Community services	Limited access to community services, except for community nurses. The rehabilitation discharge team is used to try and fill community service gaps.	Referrals to community nursing services made by nurses, other referrals made by the social worker. Limited access on weekends.	Referrals made by staff in the discipline for which the services are required. Limited access to community services on the weekend.	Limited access to community services on both the weekdays and weekend. Post Acute Care Service (PACS) is used for short-term – 2 weeks.
Allied health	Blanket referrals to all allied health staff, which are prioritised at case conference.	Blanket referrals to all allied health staff.	Referrals made by NUM for aged care patients. Blanket referrals for rehabilitation patients.	Blanket referrals to all allied health

Practices associated with higher rates of discharge on weekend
 Initiatives to improve patient flow and access
 Innovative practices
 Factors limiting but not preventing discharge on weekend

Appendix 7

Individual site visit reports – matrix of findings

Hospital	Hornsby-Kuringai Hospital	St George Hospital	Sutherland Hospital	Westmead Hospital
Facility discharge planning	The discharge planning and bed management is now a combined role	Discharge planners for Medical and Surgical divisions liaise with bed manager Patient Flow Manager available during week.	Casemix Manager flags with Bed Manager all patients 10 days over the ALOS Bed Manager available 8am to 6.30pm Monday to Friday. Clinical care coordinator in Rehabilitation Unit.	Continuum of Care Manager 5 days service (10 managers in the Hospital) to coordinate beds, assist in discharge planning and referrals Discharge planning and bed management is now a combined role
Decision to discharge				
Delegation to discharge	Geriatrician informs the other clinical specialty of a possible discharge date. Geriatrician delegates to the senior RMO within specific criteria	Registrar has delegation to discharge	No delegation to discharge to Registrar	Registrar has delegation to discharge
Weekend round	No weekend round	Aged Care Registrar does a round on Saturday and Sunday	AMO on call see all patients within 24 hours of admission	Respiratory registrar does a Sunday round AMO on call sees new admissions
Weekday round	Daily round by the Registrar Geriatrician does ward round 3 times a week, Monday, Wednesday and Friday	Daily round by the Registrar AMOs do rounds 2-3 times a week	Daily round by the Registrar AMOs do a round most days	Some AMOs prefer to do rounds later in the day so that results of diagnostics are available
Post discharge decision				
Transit lounge	ACE does not utilize the transit lounge because of environmental changes for aged care patients	Patient discharge lounge is staffed Monday to Friday by enrolled nurses Quietest time period is Monday morning	No transit lounge	The discharge lounge is open Monday to Friday 8.30am to 5pm and used extensively by respiratory patients
Discharge summary	Prepared by attending Medical team with input from ACE registrar	All potential weekend discharges have discharge summaries organised on Friday	Progressive discharge summaries All discharge summaries faxed within 24-72 hours	Progressive discharge summaries when possible
Medication *	External prescription provided out of hours Medications provided for 3 days The pharmacist and the geriatrician conduct a weekly medication round of ACE patients	External prescription provided out of hours Weekend discharge medications prepared on Friday 3 days of revised and new discharge medications dispensed	External prescription provided out of hours All discharge medication provided for 3-5 days	External prescription provided out of hours 3 days of revised and new discharge medications dispensed.
Transport *	Transport is not available on the weekend CDA used for inter hospital transfers only	If required CDA used for planned weekend discharges	If required CDA used for planned weekend discharges	Private ambulance and taxi vouchers used
Support services				
Pharmacy *	Saturday morning service A medication list is provided to ACE patients	Saturday morning service	No weekend service	Saturday and Sunday morning service Have a priority scheduling system for dispensing medication Dispenses inpatient medications
Imaging *	After hours and weekend has limited services ACE patients access imaging services through the shared care program physician	After hours and weekend has limited services	After hours and weekend has limited services	After hours and weekend has limited services Imaging Department comply with common ADO affecting routine cases
Pathology *	7 day, 24 hour routine service Electronic reporting is standard	24 hours, 7 day service Electronic reporting is standard	On site 24 hour, 7day routine service Electronic reporting is standard Priority for ICU and ED	24 hour, 7 day routine service Standard electronic reporting

Practices associated with higher rates of discharge on weekend

Initiatives to improve patient flow and access

Innovative practices

* Factors limiting but not preventing discharge on weekend

Appendix 7

Individual site visit reports – matrix of findings

Hospital	Hornsby-Kuringai Hospital	St George Hospital	Sutherland Hospital	Westmead Hospital
Managing potential ED admissions				
Medical cover	Decision to admit is made by the Emergency Department medical team Aged care admissions are admitted to EMU until reviewed by the geriatrician. Aged care admissions are separate to ACE patients. ACE patients are selected on specific criteria	Decision to admit is made by the Emergency Department medical team Round done by Aged Care Team to the Emergency Department each weekday morning AMMO does a round of the Emergency Department on the weekend	On weekends and after hours Registrar covering the Emergency Department and the hospital makes decision for admission	Medical team from the Emergency Department make the decision to admit
Process	ASET comprises RN, Physiotherapist, Occupational Therapist and Social worker 8am to 4.30pm Monday to Friday service The NDHP Officer does a round of the Emergency Department to educate and identify potential patients ACE patients identified by a pink dot on the white board in the medical ward	QRP consists of nurses, physiotherapist, occupational therapist and recently a Registrar 7 day, 8am to 8pm service	ASET comprises Geriatrician, Aged Care CNC, Occupational Therapist and Registered Nurse 8am to 6.30pm Monday – Friday service	Respiratory Physiotherapist with Respiratory Registrar may see patient in the Emergency Department and commence Bi-level Non Invasive Ventilation Therapy Continuum of Care Manager informed of admissions and a bed is allocated.
After Hours Service				
Allied Health	Physiotherapy and social worker on call for patients meeting specific criteria	Physiotherapist and social worker on call for patients meeting specific criteria	1 Physiotherapist works 4 hours each on Saturday and Sunday covering ICU, CCU and Emergency Department	Physiotherapist and social worker on call for patients meeting specific criteria
Medical specialty	No ACE Senior Resident Medical Officer on weekends	1 Aged Care Registrar for 4 hours on Saturday and Sunday mornings	No Aged Care Registrar on weekends	1 Respiratory Registrar is rostered for 4 hours on Sunday
Tried strategies	2 beds opened in the rehabilitation ward each winter	Trialled 7 day week service. No apparent impact on discharges at the weekend but decreased length of stay. During summer (December/January) AMO only comes in one day of the weekend. Rest of the year the AMO comes in each day of the weekend Pre packed meals This was proven not to be the barrier for weekend discharge as patients who were often mobile enough and had the required support services were able to access meals on weekends Through the NDHP education, training and support in intravenous antibiotics provided to nurses in aged care facilities 15 residential aged care facilities in the St George area have service level agreements for providing intravenous antibiotics Access to Rehabilitation at Calvary Healthcare Hospital enables transfer to rehabilitation on weekends The Department has a policy for recruiting Aged Care specialists who have dual specialities facilitating care of Aged Care patients who often have multiple conditions.	After hours bed manager	Respiratory Registrar rostered for 4 hours on Sunday to facilitate discharges. This has not been successful for weekend discharges as the registrar is busy reviewing sick patients. Respiratory CNC sees outliners to facilitate their discharge
Perceived/expressed barriers				
	Access to modifications of homes and equipment	Access block is perceived to be a problem of the Emergency Department not for Aged Care	No Emergency Medical Unit	Transfer of outliners to the respiratory ward is difficult
	Access to families during business hours	Access to Community support and transport on weekends	Shortage of residential aged care beds	
		Preparation of discharge summaries for unplanned weekend discharges is time consuming and priority is to spend weekend time on those with greater clinical/medical needs		

Practices associated with higher rates of discharge on weekend

Initiatives to improve patient flow and access

Innovative practices

Factors limiting but not preventing discharge on weekend

Appendix 7

Individual site visit reports – matrix of findings

Hospital	Blacktown	Fairfield	Gosford	Royal Prince Alfred Hospital	Wollongong Hospital
Speciality	General Medicine	General Medicine	General Medicine	Cardiology	Cardiology
Peer group	Principal Referral	Major Metropolitan	Major Metropolitan	Principal Referral	Principal Referral
Sat/Sun discharge rate	12.2/13.1	6.9/3.4	7.3/3.7	14.9/3.6	7.2/5.4
Infrastructure					
Ward	28 General Medicine/Specialty Medicine beds	30 bed medical ward	43% of General Medicine patients in medical wards	13 coronary care beds 25 cardiology beds	6 coronary care beds 15 cardiology beds
Outliers	Generally 10 outliers Winter period – generally 35 outliers	Generally 15 to 20 outliers Winter period - generally 28 to 35 outliers	Approximately 53% of patients are outliers	Generally 4 outliers Winter period – generally 10 outliers	Generally 2-3 outliers all year
AMO – contract	Sessional contracts	Fee for service	Fee for service	Staff Specialist	Fee for service Staff Specialist
Medical roster	5 day roster for JMOs 1 in 4 on call weekend roster for AMO	5 day roster for JMOs 1 in 4 on call weekend roster for AMO	5 day roster for JMOs 1 AMO does Thursday-Sunday on call and the other AMO does Monday-Wednesday on call	7 day roster for JMOs 1 in 15 on call weekend roster for AMO	5 day roster for JMOs 1 in 7 on call weekend roster for AMO
Staffing					
Medical	3 VMOs 1 FTE Staff Specialist 1 FTE Registrar 1 FTE Resident Medical Officer	4 VMO's 2 FTE Registrars 2 FTE Interns 1 geriatrician visits most Fridays	2 VMOs 1 FTE Registrar 1 FTE Resident Medical Officer	6 VMOs 9 FTE Staff Specialists 6 FTE Registrars 4 FTE Resident Medical Officers 1 FTE Intern	5 VMOs (2 General Physicians do both cardiology and general medicine roster, 3 accredited cardiologists) 1.1 FTE Staff Specialist 1 FTE Registrars 1 FTE Resident Medical Officer 1 FTE Intern
Allied health	Allied Health staff are ward based	Allied Health staff are ward based	Physiotherapy and Occupational therapy are ward based Other Allied Health staff are allocated across specialities	Allied Health staff allocated across clinical streams.	Allied Health staff allocated across specialities
Nursing	Clinical Nurse Consultant Continuing Care CNE – General Medical ward	Clinical Coordinator appointed for 3-month trial period Clinical Nurse Consultant Aged Care	No specific speciality designated nursing position.	CNE Coronary Care Unit Clinical Nurse Consultant Cardiology CNE Cardiology ward	Cardiac Rehabilitation Nurses
Discharge planning					
Case conference	Medical including AMO, Nursing and Allied Health staff attend case conference each Thursday	Medical, Nursing and Allied Health staff attend case conference each Wednesday	Nursing and Allied Health staff attend case conference each Monday on General Medicine/Palliative Care ward Medical, Nursing and Allied Health staff attend case conference each Monday on General Medicine/Oncology ward	No case conference as patients typically have a short length of stay	Nursing, Allied Health and Cardiac Rehabilitation Nurses attend case conference each Tuesday
Estimated Date of Discharge (EDD)	No formal documentation EDD Very small variance between expected and actual	No formal documentation of EDD Up to 20 beds variance between daily estimated and actual discharges	No formal documentation of EDD Patient information brochure encourages patients to request a discharge date from doctor Approximately 20% variance between daily estimated and actual discharges (approx: 14-20)	No formal documentation of EDD.	No formal documentation of EDD. Based on case management plan for specific clinical conditions which includes estimated length of stay Patients informed of estimated date of discharge by nursing staff Little variance between expected and actual discharges

Practices associated with higher rates of discharge on weekend

Initiatives to improve patient flow and access

Innovative practices

Factors limiting but not preventing discharge on weekend

Appendix 7

Individual site visit reports – matrix of findings

Hospital	Blacktown	Fairfield	Gosford	Royal Prince Alfred Hospital	Wollongong Hospital
Risk screening tool	Nurse admission form incorporates assessment	Low compliance with completion of State risk assessment tool.	State risk assessment tool has been adapted with approximately 85% compliance in completion Discharge alert form used for known complex discharges and discharge planner is contacted for general medical patients	No formal tool identifying transport needs for rural patients is a priority	Risk assessment completed by nurses
Clinical pathways	Clinical pathways not considered appropriate for General Medicine patients	Clinical pathways not considered appropriate for general medical patients	Clinical pathways not considered appropriate for general medical patients	Protocols exist for management of patients, but there is variation between clinicians	Use case management plans because of practice variations
Role of NUM	NUM provides leadership and is perceived as a good facilitator in the discharge process	Discharges identified by the NUM through attendance at the ward rounds	Identifies and co-ordinates discharges	NUM functions as bed manager for the cardiology department, facilitating admissions and discharges	NUM does round with AMO
Handover	No formal handover on Friday of potential weekend discharges	No formal medical handover on Friday of potential weekend discharges	No formal medical handover on Friday of potential weekend discharges	Most AMOs see patients on Saturday	No formal medical handovers on Friday or potential weekend discharges
Residential aged care	Good access to Aged Care facilities On average 1-5 with up to 10 at the most nursing home type patients on the waiting list	Social Worker is advised of bed availability Average about 2 nursing home type patients on the waiting list	Presently 60 nursing home type patients on waiting list Nursing homes selective about patients they accept	Some delays in referral's for aged care assessments and further delays to access residential aged care facilities	Little need for these services
Community services	Limited access to community services on weekdays and weekend	Very good access to community services during the week Good access to community services on the weekend	Good access to community services, Monday – Friday Limited access to community services on the weekend	With planning are able to access community services for new patient on weekend.	With planning are able to access community services for new patient on weekend.
Allied health	Physiotherapist and speech pathologist require medical referral	Referrals made by Nursing and Medical staff.	Medical referrals are required for physiotherapy and speech pathology.	Referrals made by nursing and medical staff	Referrals made by nursing staff
Facility discharge planning	Discharge planner receives print out each weekday morning or patients presenting to Emergency Department. Patients who have been seen previously by discharge planner are flagged on the EDIS system. Patients with resource intensive needs for discharge are flagged and seen by discharge planner. Colour coding system used to flag discharges on the day and for the next day. Any variations are accounted for by the NUM to the Bed Manager.	2 discharge planners (medical and surgical) who undertake practical arrangements for discharge. Clinical coordinator liaises at ward level to coordinate discharge and provide information to discharge planner where the patient requires community services. Bed Manager liaises with discharge planner on weekdays.	1 discharge planner except Wednesdays when 2 are in the hospital. Discharge planner meets with the NUM daily primarily to discuss discharge of resource intensive patients. Bed Manager responsible for the bed allocations department, day-to-day operational bed management at Gosford Hospital and coordination across the AHS.	There are designated bed managers for the hospital, 7 days a week: 7am-10:30pm weekdays and 9am – 3:30pm on weekends There is no formal link between Bed Managers and Discharge Planners	Bed Manager not active in discharge but liaise with other private and Rehabilitation hospitals in AHS regarding bed availability. Discharge planners sees select patients, Monday to Friday. No formal relationship between Bed Manager and Discharge Planner.
Decision to discharge					
Delegation to discharge	Some delegation to Registrar within specified criteria	No after hours Registrar Delegation to discharge within specific criteria.	No delegation to discharge to Registrar	Some AMOs delegate discharge to on call consultant. Some delegation to registrar within specific protocols.	No delegation to discharge to Registrar
Weekend round	AMO on call may see some or all new admissions	3 AMOs do a Saturday round On call AMO comes in as required	AMOs undertake ad hoc rounds on weekends	Most AMOs do rounds on Saturday 3 Cardiology Registrars rostered for 4 hours on Saturday morning and 1 Cardiology Registrar for all Saturday and Sunday	Weekend round by the AMO on call
Weekday round	Daily round by the Registrar AMO rounds vary between 2-3 times a week	Daily round by the Registrar Each AMO does 3 rounds per week	Daily round by the Registrar AMOs do 2-4 rounds per week	Daily round by the Registrar Regular and frequent rounds by AMOs throughout the week.	Daily round by the Registrar Daily round by the AMO while on call, AMOs not on call have variable ward round schedules

Practices associated with higher rates of discharge on weekend

Initiatives to improve patient flow and access

Innovative practices

Factors limiting but not preventing discharge on weekend

Appendix 7

Individual site visit reports – matrix of findings

Hospital	Blacktown	Fairfield	Gosford	Royal Prince Alfred Hospital	Wollongong Hospital
Post discharge decision					
Transit lounge	Transit lounge disbanded due to lack of physical space	No transit lounge	Transit lounge is available and staffed Monday to Friday by enrolled nurse. It is also used for patients requiring tests off site.	Not utilized significantly by cardiology because of location. Cardiology waiting room often used for patients awaiting transport.	No longer operational. Was largely used by surgical patients due to location and for intra and inter-AHS transfers
Discharge summary	Some progressive discharge summaries however the majority are done on day of discharge	No progressive discharge summaries	Progressive discharge summaries in General Medicine/Oncology ward	Potential weekend discharges have discharge summaries organized on Friday	If necessary completed post discharge
Medication	External prescription provided out of hours Generally 3 days revised/new discharge medications provided.	External prescription provided out of hours Generally 3 days of all discharge medication provided	External prescription provided out of hours. 3 days new or revised medications dispensed, no over the counter medications. Integrated discharge summary with discharge prescription. Discharge scrip/summary is faxed to the pharmacy and sighted on dispensing.	External prescription provided out of hours Medications provided for 3 days	External prescription provided out of hours Medications provided for 3 days
Transport	If required CDA used for planned weekend discharges. Other discharges are dependent on family or private transport.	If required CDA is used for planned weekend discharges	If required CDA used for planned weekend discharges	Significant issue for rural patients discharged on the weekend	Taxi vouchers provided
Support services					
Pharmacy	Open 8.30am to 12mid on Saturday On call after hours Pharmacy services	No on site after hours or weekend service. On call after hours Pharmacy services	Open 10am to 1pm on Saturday On call after hours Pharmacy Service	No on site after hours service	Saturday morning service
Imaging	After hours and weekend has limited services Reporting 6 days a week (excluding Saturday)	Limited on site service 8am to 12midnight On call after hours service No system evident for prioritizing requests on Monday	After hours and weekend has limited services Priority given to Emergency Department patients, emergency medical unit patients and than inpatients	Cardiac laboratory provides 24 hour service. Approximately 10-12 angiographies per day during week. Approximately 6-8 angioplasties per day during week.	After hours and weekend has limited services. Routine angiography 2 and half days per week (not Friday) Urgent angiographies transferred to Sydney.
Pathology	24 hour, 7day routine service Electronic reporting is standard.	24 hour, 7 day routine service Electronic reporting is standard	24 hour, 7day routine service Electronic reporting is standard -Cerner.	24 hour, 7day routine service No electronic reporting	24 hour, 7day routine service Electronic reporting is standard
Managing potential ED admissions					
Medical cover	Medical Registrar/CMO or locum at night. Decision to admit made by the Emergency Department in consultation with Medical Registrar/AMO.	Decision to admit is made by the emergency medical team	Decision to admit is made by the Emergency Department medical team	Cardiology registrar advises on call consultant on stability of patient. Decision to admit to is made by Emergency Department medical staff.	Decision to admit is made by the Emergency Department medical team, usually in consultation with the cardiology team
Process	ASET will commence in May 2003 and consist of a social worker, occupational therapist, and physiotherapy aides	ASET comprises of an Aged Care CNC 8am to 4.30pm Monday to Friday service	Quick Response Team comprises of a nurse in the Emergency Department 8hrs a day, 7 days a week service	List and short summary of cardiology patients faxed from Emergency Department to NUM at 8am each morning to assist in arranging bed placements. Emergency Department has 2 major rounds in the morning and 2 in the afternoon.	Rapid assessment team in emergency
After Hours Service					
Allied Health	Physiotherapist and social worker on call for patients meeting specific criteria	Physiotherapist and social worker on call for patients meeting specific criteria	Physiotherapist and social worker on call for patients meeting specific criteria	Physiotherapist and social worker on call for patients meeting specific criteria	Physiotherapist and social worker on call for patients meeting specific criteria
Medical speciality	No designated General Medicine registrar on weekends	No general medicine Registrar cover on weekends	No general medicine registrar cover on weekends	Saturday morning – 3 Registrars and 1 on call. 1 Registrar rostered after hours. 1 Resident Medical Officer after hours, except Saturday morning.	No Cardiology Registrar on weekends

Practices associated with higher rates of discharge on weekend

Initiatives to improve patient flow and access

Innovative practices

Factors limiting but not preventing discharge on weekend

Appendix 7

Individual site visit reports – matrix of findings

Hospital	Blacktown	Fairfield	Gosford	Royal Prince Alfred Hospital	Wollongong Hospital
Tried strategies	Transit lounge	Additional beds	Discharge planner rostered for Saturday morning for winter 2001 and 2002. AMOs who discharge appropriate patients and then perform an endoscopy on them as an outpatient within two weeks of discharge is provided with an extra endoscopy session. Extra radiology team employed during the winter.	NUM of CCU manages cardiology beds	Common ADO only reinforced by JMO Administration
Perceived/expressed barriers	Lack of a transit lounge.	Lack of medical staff infrastructure. Access to a geriatrician.	Increasingly difficult to recruit Registrars to General Medicine.	Access to rural transport	Access to angiography during week. Variation in ALOS of patients between AMOs.

 Practices associated with higher rates of discharge on weekend

 Initiatives to improve patient flow and access

 Innovative practices

 Factors limiting but not preventing discharge on weekend

