



# **GP Liaison Program**

## **Hospital Discharge Summary Audit 2008** (Data collected November 2007)

## Background

The Eastern health GP Liaison Program (EHGPL) is the joint work between four Eastern Melbourne Regions Divisions of General Practice and Eastern Health hospitals. The program focuses on initiatives that are aimed at promoting patient care in the most appropriate setting (eg. general practice vs. acute settings). One of the aims of the program is a focus on communication between GPs and EH hospital sites. The importance of legible and comprehensive Discharge Summaries is emphasised.

The EHGPL program staff conduct audits to assess the quality of discharge summaries leaving the hospitals at the three main sites of Eastern Health; Box Hill, the Angliss and Maroondah. The information is used to guide the future directions and priorities of the EHGPL program.

Total number of Discharge Summaries Audited 2007

<b>Hospital</b>	<b>Number of DS</b>
Angliss Hospital	50
Box Hill Hospital	50
Maroondah Hospital	50

## **Method for auditing discharge summaries**

1. The EHGPL team meets and creates the approach, audit process and evaluation tool
2. Specifications are confirmed, including date range, which department's discharge summaries come from, and number to be audited. To reduce differences in interpretation GP Liaison Officers (GPLOs) and GP Consultants use a structured assessment scale for the audit
3. GPLOs liaised with EH Health Information Services at each hospital site to arrange a time to conduct the audit
4. EH Health Information Services extract patient files within the date range provided by the GPLO
5. The GPLO and GP Consultant visit the hospital and complete the audit, with the GPLO able to assess the administration aspects of the audit and the GP Consultant the clinical components
6. De-identified details of the audit are entered into a spreadsheet for electronic transfer to the discharge audit lead for collating and graphing. Copies are saved on Division systems.
7. Report is written by project lead including outcomes and recommendations and sent to GPL Coordinator, other GPLOs and GP Consultant for comments and approval
8. Final report is presented to key stakeholders including the EHGPL Steering Committee and at each of the hospital GP Liaison Committee meetings
9. An article is written for Division newsletters based on the written report and includes outcomes and recommendations. The article will also appear in EH newsletters and will be submitted to the EHGPL coordinator for inclusion.
10. The EHGPL Program staff met to review the process, make recommendations for future audits, and implement recommendations from the report

## **The Angliss Hospital**

The Angliss Hospital is located in Melbourne's Outer East at the foothill of the Dandenong Ranges. First opened in 1958, the hospital now has 230 beds, including a new 20 bed day procedure unit and state of the art community rehabilitation centre. The hospital maintains its community focus, and as such is designed to support low complexity health care needs, be it in the emergency department, general surgery, midwifery, Paediatrics, rehabilitation or in the home.

The 2007 Angliss DS audit was conducted in November 2007 on 50 randomly selected DS dated from 2 April 2007 to 13 July 2007, excluding weekends. The hospital has recently undergone a shift from paper-based to electronic DS from most wards, and this was reflected in the audit, with a greater number of electronic DS than hand written.

Areas which were recorded on 100% of DS at the Angliss included the patient name, the discharge date, reason for admission, principle/final diagnosis and investigations and findings. Other areas included on over 90% of DS were the patient's date of birth, the admission and completion date, operations and procedures, complications during the stay, medications and changes made, allergies and drug reactions and follow up or future management. Areas in need of improvement included recording the GPs fax number on the DS and whether the hospital phoned the GP regarding the discharge, both of which were included on fewer than 10% of DS.

Whilst the move to electronic DS and an electronic database of GPs at the hospital has resulted in easier to read and formatted DS, it has also meant the exclusion on the DS of some of the areas audited; most notably the poor performance areas previous mentioned. Therefore while GP fax details were only physically recorded on 8% of DS, it can not be assumed that other DS were not faxed, nor can it be assumed that only 10% of GPs were phoned.

## **The Box Hill Hospital**

The largest of the Eastern Health Hospitals, Box Hill has been serving the eastern suburbs since 1957. The hospital has a total of 365 inpatient beds, 6 operating theatres and sees 40,000 people in the emergency department per year. The hospital has undergone a number of redevelopments to include up to date cardiology, oncology and maternity services. The Box Hill hospital is also a tertiary teaching hospital, helping to train future health care providers.

The 2007 Box Hill DS audit was conducted in December 2007 on 50 randomly selected DS dated from 2 April 2007 to 13 July 2007, excluding weekends.

Box Hill hospital achieved 100% inclusion on DS for the patient's date of birth and reason for admission and over 90% for the inclusion of investigations and findings, follow up and future management and the admission and DS completion date. The two areas that were recorded on fewer than 10% of DS (and were actually not recorded on any of the DS) were the GP fax number, and whether the hospital phoned the GP. As with the Angliss results, it can not be assumed that the DS was not faxed, as 8% of DS were recorded as being faxed to GPs from Box Hill, or that the GP was not phoned, the information is simply not being recorded on the DS.

During the DS audit, it was noted there was a significant difference between Birralee Maternity Unit and the rest of the hospital. Most of the Birralee DS were hand written and often missing information and therefore results of the DS audit may not be a fair reflection of Box Hill Hospital DS. However it is also important to mention that Birralee is working to improve the quality of their DS, with the introduction of a new software program a positive change to current processes.

## **The Maroondah Hospital**

Maroondah Hospital is the largest hospital in the outer east of Melbourne, with 301 inpatient beds. While recently undergoing extensive renovations the hospital maintained services with increasing demand from patients. The emergency department sees a total of 49,000 patients per year, which reflects the demand on the hospital from the large outer eastern catchment.

The 2007 Maroondah Hospital DS audit was conducted in November 2007 on 50 randomly selected DS dated from 2 April 2007 to 13 July 2007, excluding weekends.

In the 2007 DS audit Maroondah hospital recorded the patient's name, date of birth and the admission date on 100% of DS. Also recorded on over 90% of DS were the patient's discharge date, the ward and unit consultant name, reason for the admission, the principal and final diagnosis, allergies and drug reactions and complications or a record of no complications during the patients stay.

The only area which was recorded on under 10% of DS a Maroondah hospital was the hospital phoning the GP (recorded on 2% of DS), which is line with the poor results (and recording of the information on the DS) in this category for both the Angliss hospital (10%) and the Box Hill hospital (0%).

## **Comparison with previous Discharge Summary data**

In 2003 the Box Hill Hospital conducted a DS audit. Compared to that audit current data indicates that fewer DS are being completed and sent on the same day, fewer GPs have been phoned regarding the DS, and more DS are not indicating how the DS is getting to the GP on the DS. None of the results indicated an improvement in any of the four areas audited in both the 2003 and 2007 DS audit (*See Appendix 1 for a breakdown of this data*).

In 2005, instead of a DS Audit, GPs were asked to rate their satisfaction with DS they were receiving from Box Hill, Maroondah and Angliss hospitals. While this data is not easily comparable there are some aspects worth noting. From the Angliss hospital in 2005 GPs responded that they were receiving 68% of DS within 48 hours. Whereas data collected in the 2007 audit recorded 22% of DS were sent to GPs within the 48 hours post discharge. The figures for the Box Hill hospital were 46% of GPs in 2005 recorded receiving the DS within 48 hours, compared to 36% being sent from the hospital in this time frame in 2007. At Maroondah 50% of GPs were receiving their DS within 48 hours in 2005 while in 2007 62% of DS audits were sent within 48 hours, an actual improvement.

GPs were also asked to report on how they were receiving the DS and what their preferred method for receiving it was. The 2005 audit showed GPs were receiving 62% of their DS from the Angliss via fax and 38% by mail, while 66% of GPs preferred receiving their DS via fax, close to the number actually receiving it that way. The 2007 DS audit recorded 34% of DS being faxed, far outnumbering the DS sent by mail or with the patient. However, 62% of DS did not have a record of how the DS was sent to the GP. At Box Hill the majority of GPs in 2005 also preferred getting their DS via fax (66%), with 21% actually receiving it by this method. Currently 42% of DS are mailed to the GPs with 44% of DS not recording it was sent to the GP. GPs received 66% of DS from Maroondah in 2005 via the patient, however 49% of GPs preferred the DS to be faxed, which is reflected in the 2007 DS audit, where 50% of DS were faxed and none were recorded as sent with the patient.

**GP / Patient details**

**GP Address**

Box Hill and Maroondah both recorded the GPs address on 72% of DS. 62% included the information at the Angliss.

**GP Phone Number**

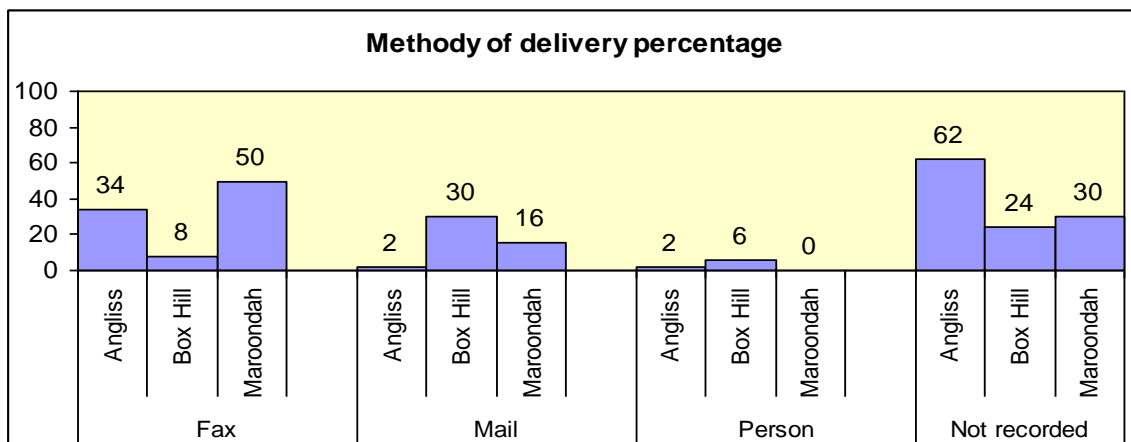
A total of 14% of DS at the Angliss and Maroondah included the GP Phone Number; this number was 46% at Box Hill.

**GP Fax Number**

Angliss Hospital had fax details recorded on 8% of DS, compared to none at Box Hill and 46% at Maroondah.

**Method of Delivery**

Results for the DS audit at Box Hill indicated that 30% of DS are mailed to the GP compared with 28% recorded in the 2003 DS audit, 8% are faxed (24% in 2003), 6% are sent with the patient (24% in 2003) and 24% are not recorded, which is consistent with 2003 results. Box Hill also recorded that 12% of DS were both mailed and sent by another means and 20% of DS had no information on the method of delivery on the form. Box Hill Hospital's results were compared with the Angliss and Maroondah (see table below).



### Hospital phoned the GP

At Box Hill Hospital this information was not recorded on any of the DS audited. The results were 80% not recorded and 20% of the DS had no field on the form to enter the information. This is compared with the audit in 2003 where it was indicated GPs were phoned on 21% of DS. The 2007 results at the Angliss and Maroondah were 10% and 2% respectively.

### Patient Name

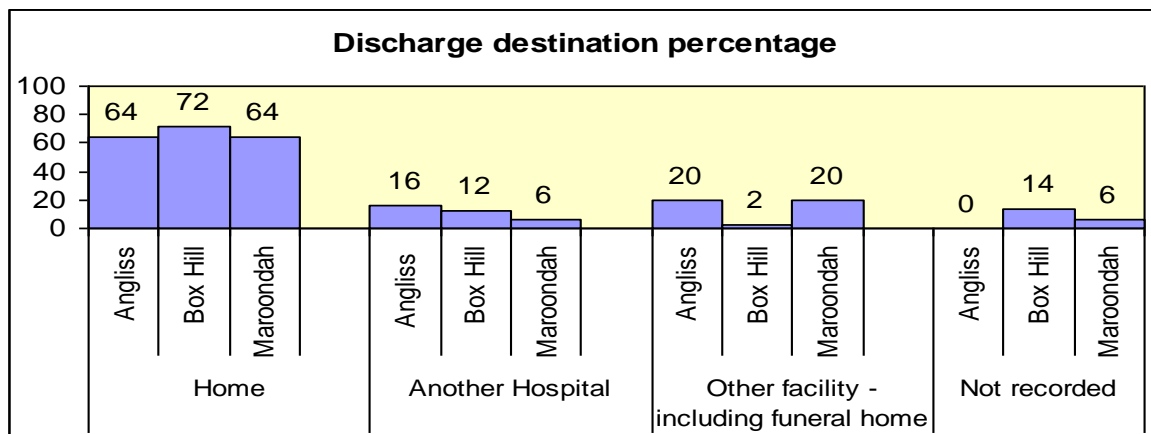
The patient name was included on 100% of DS at both Angliss and Maroondah and on 98% at Box Hill.

### Patient Date of Birth

The patient's date of birth was included on 100% of DS at Box Hill and Maroondah and on 94% at the Angliss.

### Discharge Destination

At the Angliss hospital the patient's discharge destination was recorded on 100% of discharge summaries, 90% of DS at Maroondah included this information (of the 10% that didn't 6% were not recorded and 4% not applicable) and 86% at Box Hill. For a breakdown of discharge destinations see table below).



## Admission and Discharge

### Admission Date

A total of 100% of DS at Maroondah included the admission date, Angliss and Box Hill both recorded 98%.

### Discharge Date

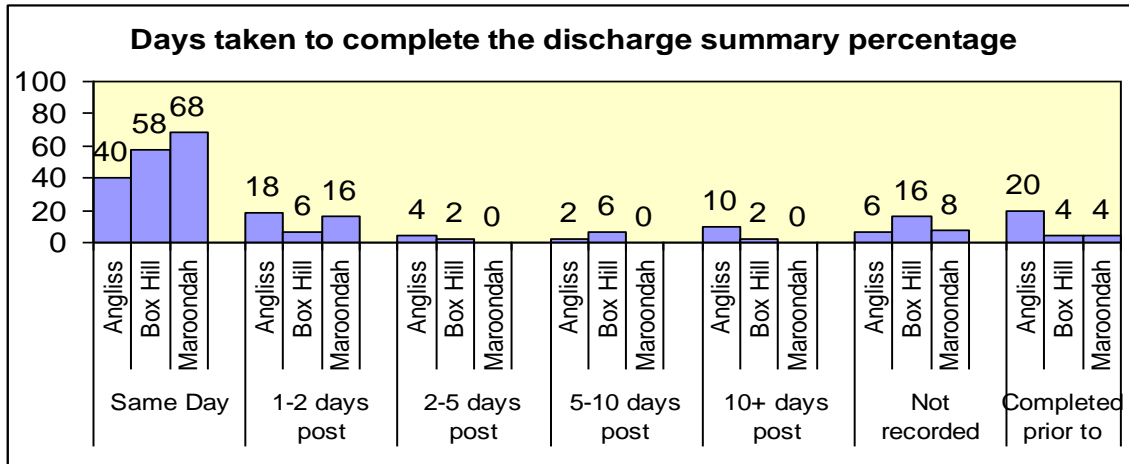
A total of 100% of DS at the Angliss included the discharge date, compared with 96% at Maroondah and 86% at Box Hill.

### DS Completion Date

A total of 96% of DS at Box Hill included the DS completion date, 94% at Angliss and 88% at Maroondah.

**Number of days to complete DS**

The majority of DS are completed on the same day, with the information not recorded on 16% of DS at Box Hill, 8% at Maroondah and 6% at Angliss (see table below for comparison).

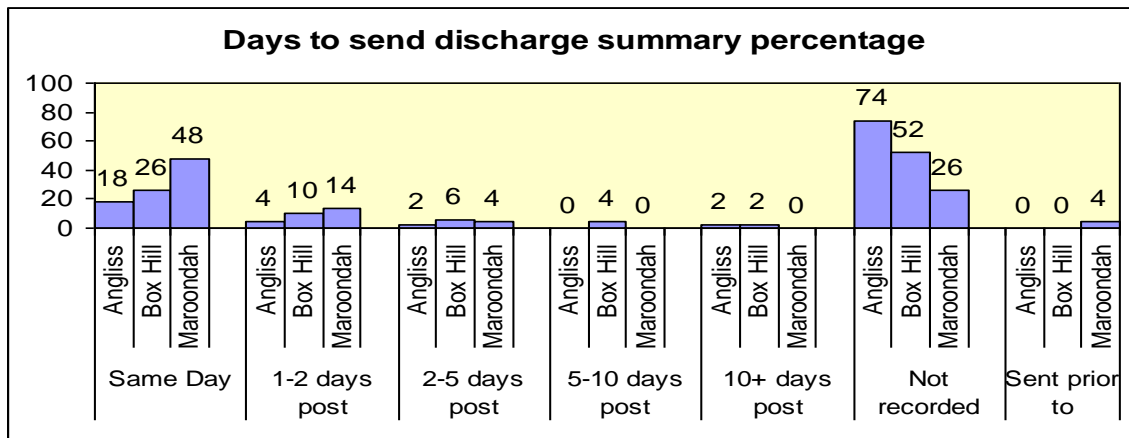


**DS date sent**

The date the DS was sent is recorded on 70% of DS at Maroondah, 50% at Box Hill and 28% at the Angliss hospital.

**Number of days to send DS**

Maroondah recorded 48% of DS showing the DS was completed and sent the day of discharge, compared with 26% at Box Hill and 18% at the Angliss. In 74% of cases the DS at the Angliss did not record this information, 52% did not at Box Hill and 26% at Maroondah (see table below for a breakdown of the data).



**Hospital Details**

**Ward and Unit/Consultant name**

The Angliss recorded these details on 100% of DS audited, 94% of DS at Maroondah included this information and 82% at Box Hill, reflecting the inclusion on the DS of both Ward and Unit/Consultant at the same time.

## Clinical Information

### Reason for admission

Both the Angliss and Box Hill audit recorded that 100% of DS included the reason for the patient's admission. Maroondah hospital recorded 94%.

### Principle/Final diagnosis

A total of 100% of audits at the Angliss included the Principle/Final diagnosis, 94% at Maroondah and 88% at Box Hill.

### Investigations and Findings

Of the 50 DS audited at the Angliss, 100% recorded Investigations and findings, 96% included the information at Box Hill and 82% at Maroondah.

### Operations and Procedures

At the Angliss 94% of DS included this information, 82% at Maroondah and 58% at Box Hill. In this category Box Hill hospital recorded 42% of DS as Not applicable for this information, compared to 12% for Maroondah and 6% at the Angliss.

### Complications during stay

The Angliss detailed complications or stated that nil complications occurred on 98% of DS. The number was 96% at Maroondah and 78% at Box Hill.

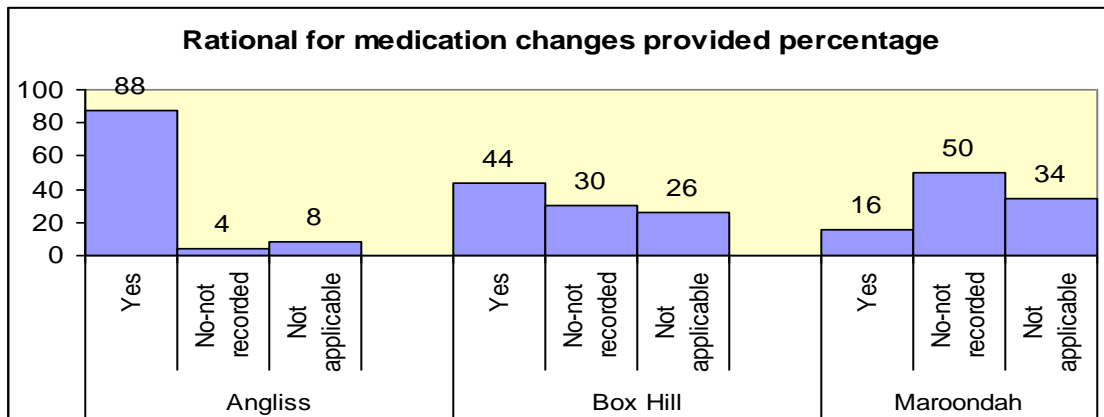
## Medications

### Medications and changes made to Meds

A total of 96% of DS at the Angliss had current medication and changes made to medication during the stay included in the DS or documented that there was no change to medications; this number was 86% at Maroondah and 66% at Box Hill.

### Rational for Medication changes provided

The Angliss results indicated 88% of DS included this information, 4% didn't and 8% were not applicable, compared to Box Hill, where 44% of DS included the information, 30% didn't and 26% were not applicable and Maroondah, where 16% of DS included this information, 50% didn't and 34% were not applicable.



### Duration and management of Medications

At the Angliss 78% of DS contained information on the duration of hospital initiated medications, and both Box Hill and Maroondah recorded 66% of DS including this information.

### Allergies/Drug reactions

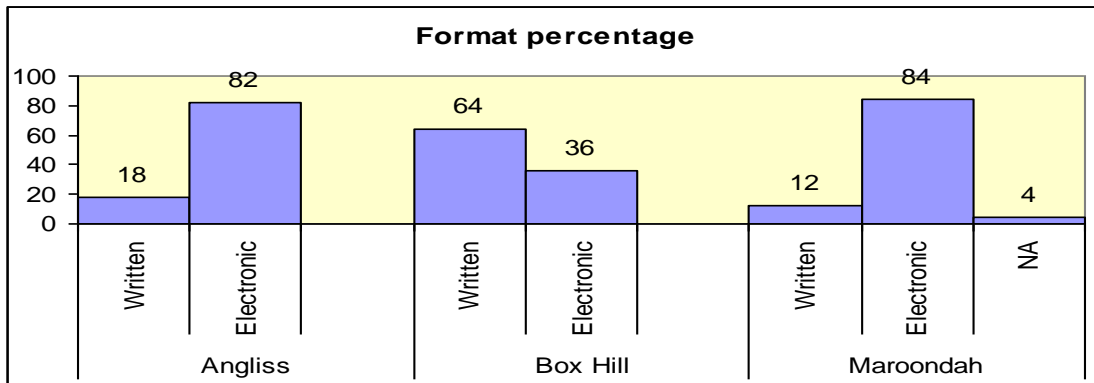
Allergies and drug reactions were recorded on 94% of Angliss, 90% of Maroondah and 66% of Box Hill DS.

### Follow up / Future management

Box Hill hospital recorded 98% of DS including information on follow up or future patient management, compared to 96% at Angliss and 80% at Maroondah.

### Format

A total of 84% of DS at Maroondah are electronic, compared with 82% at the Angliss and 36% at Box Hill (see table below).



## **Recommendations**

### **Audit process and evaluation**

1. The continuation of Bi-annual Discharge Summary audits
2. The adoption of a standardised and statistically sound audit tool to enable greater comparison across sites, with hospitals in other geographic areas and to minimise differences in auditor interpretation across the sites

### **Audit reports**

1. The continued development and circulation of the Discharge Summary Report to EH GPL member Divisions and GPL hospital committee members to enable greater recall of results for future DS audits
2. The creation of a DS audit newsletter article for GPs and other hospital staff and inclusion of the article in the EH GPL member Divisions newsletters and the EH GPL newsletter

### **Hospital education and resources**

1. The electronic DS to be reviewed to include fields for a minimum data set of information that GPs require
2. EH to include articles and examples of good DS in the EH GPL newsletter. Could focus on specific areas identified in this report, eg the importance of the inclusion of GP information on DS. This needs to be balanced with good examples of referral forms and their necessity at the receiving hospital
3. Division GPL Officers and Consultants to continue to represent GPs and the importance of communication at HMO orientation sessions, particularly focusing on the quality and timeliness of DS
4. The current EH auto fax process to be expanded to include DS sent rates. This will enable EH and Division's to monitor faxed DS and to identify GP practices who are not receiving faxes from EH
5. Explore the possibility of linking a prompt to the DS to remind hospital staff to not just "save" the DS but to "send" it electronically or via fax

## Appendix 1

The following table summarises the results for the 2007 DS audit and includes comparisons with previous audits where applicable (see Box Hill results). The results for each indicator have been separated according to alphabetical order. E.g. GP Address followed by Angliss data, then Box Hill and finally Maroondah.

### Combined results of all hospital sites

<b>GP Address</b> Yes: 62% No: 38% - Yes: 72% No: 28% - Yes: 72% No: 28%	<b>GP Phone Number</b> Yes: 14% No: 86% - Yes: 14% No: 66% Not on form: 20% - Yes: 46% No: 50% NA: 4%	<b>GP Fax Number</b> Yes: 8% No: 92% - Yes: 0 No: 76% Not on form: 24% - Yes: 46% No: 50% NA: 4%	<b>Ward</b> Yes: 100% No: 0 - Yes: 82% No: 18% - Yes: 94% No: 2% NA: 4%
<b>Unit/Consultant name</b> Yes: 100% No: 0 - Yes: 82% No: 18% - Yes: 94% No: 2% NA: 4%	<b>Hospital ph. The GP</b> Yes: 10% No- not recorded: 90% - Yes: 0 (Audit 2003: 21%) No- not recorded: 80% (Audit 2003: 79%) Not on form: 20% - Yes: 2% No-not recorded: 94% NA: 4%	<b>Patient Name</b> Yes: 100% No: 0 - Yes: 98% No: 2% - Yes: 100% No: 0	<b>Patient Date of Birth</b> Yes: 94% No: 6% - Yes: 100% No: 0 - Yes: 100% No: 0
<b>Admission Date</b> Yes: 98% No: 2% - Yes: 98% No: 2% - Yes: 100% No: 0	<b>Discharge Date</b> Yes: 100% No: 0 - Yes: 86% No: 14% - Yes: 96% No: 0 NA: 4%	<b>DS Completion Date</b> Yes: 94% No: 6% - Yes: 96% No: 4% - Yes: 88% No: 8% NA: 4%	<b>DS date sent</b> Yes: 28% No-not recorded: 72% - Yes: 50% No-not recorded: 36% Not on form: 14% - Yes: 70% No-not recorded: 26% NA: 4%
<b>No. of days to complete DS</b> A: Same day: 40% B: 1-2 days: 18% C: 2-5 days: 4% D: 5-10 days: 2% E: 10+ days: 10% Not recorded: 6% Minus: 20% - A: Same day: 58% (Audit 2003: 66%) B: 1-2 days: 6% C: 2-5 days: 2% D: 5-10 days: 6% E: 10+ days: 2%	<b>No. of days to send DS</b> A: Same day: 18% B: 1-2 days: 4% C: 2-5 days: 2% D: 5-10 days: 0 E: 10+ days: 2% Not recorded: 74% Minus: 0 - A: Same day: 26% (Audit 2003: 35%) B: 1-2 days: 10% C: 2-5 days: 6% D: 5-10 days: 4% E: 10+ days: 2% Not recorded: 52%	<b>Method of Delivery</b> Mail: 2% Fax: 34% Patient: 2% Not Recorded: 62% - Mail: 30% (Audit 2003: 28%) Fax: 8% (Audit 2003: 24%) Patient: 6% (Audit 2003: 24%) Not Recorded: 24% (Audit 2003: 24%) Mail + other: 12% Not on form: 20%	<b>Discharge Destination</b> Home: 64% Other hospital: 16% Other facility: 20% Not recorded: 0 - Home: 72% Other hospital: 12% Other facility: 2% Not recorded: 14% - Home: 64% Another hosp: 6% Other facility: 20% Not recorded: 6% NA: 4%

Not recorded: 16% Minus: 4% NA: 6% - A: Same day: 68% B: 1-2 days: 16% C: 2-5 days: 0 D: 5-10 days: 0 E: 10+ days: 0 Not recorded: 8% Minus: 4% NA: 4%	- A: Same day: 48% B: 1-2 days: 14% C: 2-5 days: 4% D: 5-10 days: 0 E: 10+ days: 0 Not recorded: 26% Minus: 4% NA: 4%	- Mail: 16% Fax: 50% Patient: 0 Not Recorded: 30% NA: 4%	
<b>Reason for admission</b> Yes: 100% No- not recorded: 0 - Yes: 100% No- not recorded: 0 - Yes: 94% No- not recorded: 2% NA: 4%	<b>Principle/Final diagnosis</b> Yes: 100% No-not recorded: 0 - Yes: 88% No-not recorded: 12% - Yes: 94% No-not recorded: 2% NA: 4%	<b>Investigations and Findings</b> Yes: 100% No-not recorded: 0 - Yes: 96% No-not recorded: 4% - Yes: 82% No-not recorded: 14% NA: 4%	<b>Operations and Procedures</b> Yes: 94% No-not recorded: 0 Not applicable: 6% - Yes: 58% No-not recorded: 0 Not applicable: 42% - Yes: 82% No-not recorded: 6% Not applicable: 12%
<b>Complications during stay</b> Yes: 98% No-not recorded: 2% - Yes: 78% No-not recorded: 18% NA: 4% - Yes: 96% No-not recorded: 0 NA: 10%	<b>Medications and changes made to Meds</b> Yes: 96% No-not recorded: 0 Not applicable : 4% - Yes: 66% No-not recorded: 16% Not applicable: 18% - Yes: 86% No-not recorded: 4% Not applicable: 10%	<b>Rational for Med changes provided</b> Yes: 88% No: 4% Not applicable: 8% - Yes: 44% No: 30% Not applicable: 26% - Yes: 16% No: 50% Not applicable: 34%	<b>Duration and management of Meds</b> Yes: 78% No-not recorded: 22% - Yes: 66% No-not recorded: 22% NA: 12% - Yes: 66% No-not recorded: 26% NA: 8%
<b>Allergies/Drug reactions</b> Yes: 94% No-not recorded: 6% - Yes: 66% No-not recorded: 26% Not on form: 8% - Yes: 90% No-not recorded: 6% NA: 4%	<b>Follow up / Future management</b> Yes: 96% No-not recorded: 4% - Yes: 98% No-not recorded: 2% - Yes: 80% No-not recorded: 16% NA: 4%	<b>Format</b> Written: 18% Electronic: 82% - Written: 64% Electronic : 36% - Written: 12% Electronic: 84% NA: 4%	

## Appendix 2

The assessment scale used to score the discharge summaries. GP Consultants used this when completing the audits at each hospital site.

<b>Assessment Scales</b>		
#	Query	Assessment Options
1	GP Address	Y: Yes N: No
2	GP Phone Number	Y: Yes N: No
3	GP Fax Number	Y: Yes N: No
4	Method of Delivery	M: Mail F: Fax P: Patient NR: Not Recorded
5	GP Phoned by HMO / Hospital	Y: Yes N: No - Not recorded
6	Patient Name	Y: Yes N: No
7	Patient Date of Birth	Y: Yes N: No
8	Discharge Destination	H: Home AH: Another hospital/Sub acute facility O: Other facility NR: Not Recorded
9	Admission Date	Y: Yes (Please specify DD/MM/YY) N: No - Not recorded
10	Discharge Date	Y: Yes (Please specify DD/MM/YY) N: No - Not recorded
11	Discharge Summary Completion Date	Y: Yes (Please specify DD/MM/YY) N: No - Not recorded
12	Number of days taken to complete the Discharge Summary	A: Same Day B: 1-2 Days C: 2-5 Days D: 5-10 Days E: 10+ Days
13	Discharge Summary Date Sent	Y: Yes (Please specify DD/MM/YY) N: No - Not recorded
14	Number of days taken to send the Discharge Summary post Discharge Date	A: Same Day B: 1-2 Days C: 2-5 Days D: 5-10 Days E: 10+ Days
15	Ward	Y: Yes N: No
16	Unit/Consultant Name	Y: Yes N: No
17	Reason for Admission	Y: Yes N: No - Not recorded
18	Principal/Final Diagnosis	Y: Yes N: No - Not recorded
19	Investigations and Findings	Y: Yes N: No - Not recorded

20	Operations and Procedures	Y: Yes N: No - Not recorded NA: Not applicable
21	Complications During Stay	Y: Yes - Complication documented or documentation that nil complications occurred N: No - None recorded
22	Medication and changes made to medication	Y: Yes N: No - None recorded NA: Not applicable
23	Rationale for medication changes provided	Y: Yes N: No NA: Not applicable
24	Duration and management of hospital initiated Medications	Y: Yes N: No - Not recorded
25	Allergies/Drug reactions specified	Y: Yes N: No - Not recorded
26	Follow up/future management	Y: Yes N: No - Not recorded
27	Format of Discharge summaries	W: Written E: Electronic