Improving the efficiency of external pathology results follow up at our Lung Transplant Unit

**BACKGROUND**

- Our out patient unit is oversees the outpatient management of all lung transplant recipients in New South Wales
- Total of 400 post lung transplant patients attend our clinic
- Improved survival and increasing availability of donors have resulted in 150% increase in activity over the last 10 years
- Close monitoring of immune suppression levels as well as end-organ toxicity is paramount to prolong survival and reduce morbidity
- Complexity of care for this group of patients requires experienced physicians to review their results and make the necessary changes to management
- Due to geographical distances patients often use external pathology services

**AIM STATEMENT**

Within 6 months we will ensure that 75% to 100% of patients having bloods taken at external pathology services will have their results followed up by our clinic staff and results communicated back to them within 3 days.

**METHODOLOGY**

This project used the NSW health Clinical Redesign Methodology:

- Project Initiation and internal
- Diagnostics
- Solution design
- Implementation and planning
- Implementation check points
- Evaluating sustainability

We collected data for our diagnostics using:

- Staff consultation
- Process mapping
- Focus group
- Patient Stories
- Patient satisfaction survey
- Data Collection and analysis

**DIAGNOSTICS**

Four stages identified in processes to facilitate identifying issues

**Stage 1**

- Prior to having their bloods taken
- Clinic Staff unaware of patient having had bloods taken
- Patients having bloods when they thought necessary rather than when told to by staff
- Lack of standardized guidelines for when to check bloods

**Stage 2**

- Processing results in external pathology service
- Bloods being sent to St Vincent's SYDPATH for processing of immune suppressant drug level causing turnaround delay of results
- Results received haphazardly – as they become available, not batched
- Multiple copies of same results being sent e.g. via fax, paper copies
- Different consultants receiving results at different times

**Stage 3**

- Processing of results once received in clinic
- Files being placed out for review with incomplete set of results available
- Multiple copies of same results received in different formats and various time points
- Poor communication between nursing staff and doctors
- Difficult to track whether results have been seen and actioned
- Lack of standardized guidelines for staff on procedure for reviewing results

**Stage 4**

- Processing of results once received in clinic
- Patients only being called if a result requires a change in management
- Patients not always available to have results conveyed e.g. mobile switched off / no answer
- Patients calling throughout the day to check if results have been reviewed
- Patients calling on call doctor out of hours who may not have information to hand
- Incomplete database of patient contact details

**RESULTS**

Implementation of interventions will commence in February 2017 with the commencement of new clinical year

- A log sheet has been developed to be used as audit tool to capture following data:
  - Date bloods taken
  - Date results received at our unit
  - Date results checked and communicated back to patient
  - Whether change in management was required or not
  - Method communicated back to patient i.e. Phone call, SMS, email

Aim is to analyze data at 3 months, 6 months and 12 months post implementation

**INTERVENTIONS**

- A Standard Operating Procedure (SOP) for the management of external pathology results has been developed
- Workflow chart of the SOP made into a poster and displayed in clinical areas, and help staff understand and implement it in the clinic
- Clear guidelines outlining when and how often should request pathology tests to avoid over investigation
- The patient database was updated to include a mobile phone number and email address, to improve communication with patients
- “Results Line” email to enhance patient – staff communication
- Dedicated area allocated for patient file review
- Roster implemented for doctors to review results promptly
- Patients receive a phone call if change in management required
- Patients receive email +/or SMS if no change in management
- Patient information brochure for education

**SUSTAINING CHANGE**

- SOP introduced into doctor and nurses orientation program
- New system will form part of post lung transplant patient education by CNS prior to discharge
- At 3 months implementation will be followed up with:
  - Staff Satisfaction survey
  - Patient Satisfaction survey
  - Time from having bloods taken to results communicated to patient will be measured

**CONCLUSION**

This project highlights the importance of team work within the hospital environment as well as the essential component of the availability of clear set guidelines to be made available to staff to assist in improving efficiency enabling us to safe delivery of care and thereby improving patient and staff satisfaction

**ACKNOWLEDGEMENTS**

Multidisciplinary staff and patients of the heart and lung clinic at St Vincent’s Hospital (Sydney)

**CONTACT**

Dr Mark Benzimra, Staff Specialist
Lung Transplant Unit, St Vincent’s Hospital (Sydney)
Mark.Benzimra@svha.org.au