

Background of the Problem

Under Misuse of Drug Regulations, Controlled Drugs (CD) must be disposed in the presence, and in accordance with directions given by Health Sciences Authority (HSA) inspector. Pharmacy Store manages hospital-wide controlled drug wastages. Approximately 320 wastages are received every year. Collation of wastages is done manually which takes up a lot of time. This process includes notifying each user detail of HSA appointment date through fax memo together with list of wastages filed by respective user. It is a time consuming process. Furthermore, a number of phone calls enquiries and re-faxing of memo are required to follow up if user omits to acknowledge receipt of memo. There are many instances of missed appointments with existing work process.

Mission Statement

- ❖ Streamline the CD wastage handling process
- ❖ Reduce time spent on the entire process by 50% in each CD destruction cycle

Analysis of the Problem

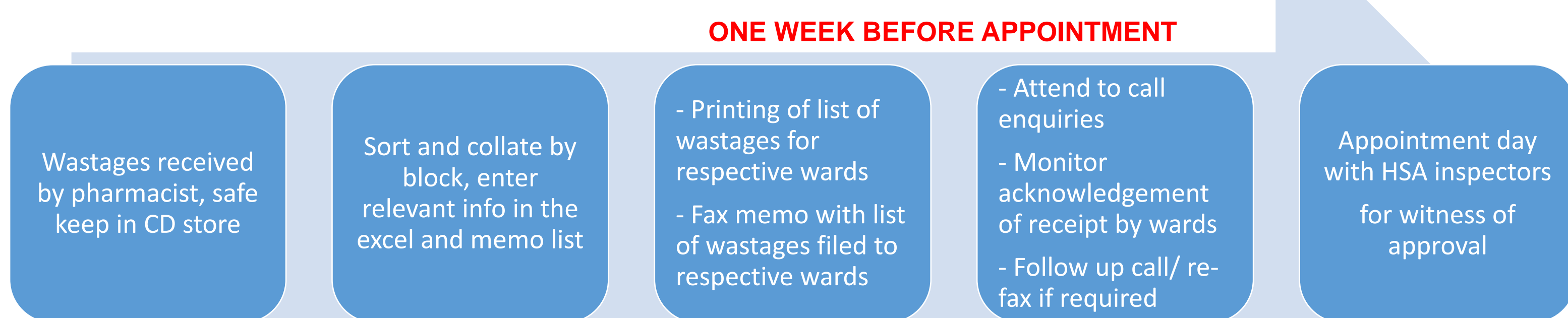


Figure 1: CD wastages process

Non-value added task

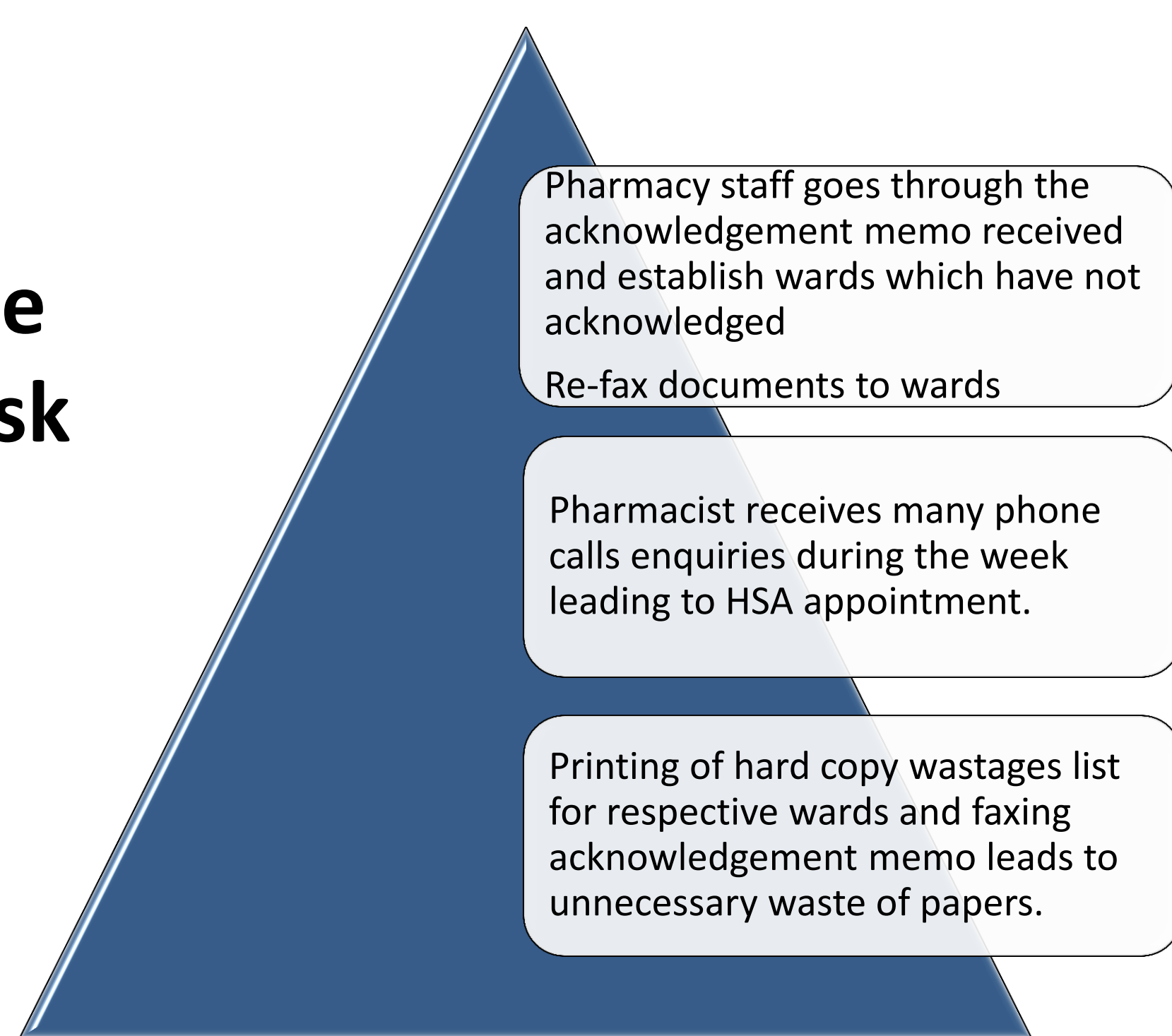


Figure 2: Non-value added task prior to HSA Appointment Day

S/N	CONTROLLED DRUGS	EXPIRED		WASTAGE		BREAKAGE		TOTAL DESTROYED	
		Volume	EA	Volume	EA	Volume	EA	Volume	EA
1	Pethidine 50mg/ml inj				4		2		6
2	Fentanyl 100mcg/2ml inj			16 mL	27	2 mL	12	18 mL	39
3	Fentanyl 12mcg/hr patch		2						2
4	Fentanyl 500mcg/10ml inj			8 mL	8			8 mL	8
5	Ketamine 100mg/2ml inj	22 mL		18.5 mL	2			40.5 mL	2
6	Ketamine 500mg/10ml inj	8.2 mL	2	28.8 mL	3			37 mL	5
7	Methylphenidate HCl 10mg Tab				1				1
8	Morphine 10mg/ml Inj			1 mL	37		6	1 mL	43
9	Morphine Sulfate SR 10mg Tab				5				5
10	Morphine Sulfate SR 30mg Tab				1				1

Figure 3: Consolidation of all CD wastages in Excel list for HSA submission

LOCATION: DEM
Tel: Fax: 3589

The following wastages belonging to your ward/ clinic have been reported to Pharmacy CD Store.

- Please locate the entries of the reported cases in your CD Administration Book. For CDs stored in AMCs, please locate the relevant waste reports.
 - For completed books, you may send the CD Administration Book down to Pharmacy Store prior to HSA Drug Inspector visit.
 - For current CD Administration Books, send a staff nurse at the appointed time to get the wastages/breakages endorsed by HSA Drug Inspector.
- If any of the entries below cannot be located, contact Pharmacy Store to clarify before the visit by HSA Drug Inspector.
- Please remember to fax the reply slip to Pharmacy Store to indicate your confirmation of attendance during the visit by the HSA Drug Inspector.

S/N	Date	Controlled Drug	Quantity	Type of waste
1	20/02/17	Ketamine 100mg/2ml Injection	1	Wastage
2	07/02/17	Fentanyl 100mg/2ml Injection	1	Wastage
3	15/02/17	Ketamine 100mg/2ml Injection	1	Wastage
4	12/03/17	Ketamine 100mg/2ml Injection	1	Wastage
5	12/03/17	Ketamine 100mg/2ml Injection	1	Wastage
6	4/4/2017	Ketamine 100mg/2ml Injection	1	Wastage
7	23/4/2017	Ketamine 100mg/2ml Injection	1	Wastage
8	7/5/2017	Pethidine inj	1	wastage
9				

Figure 4: List of wastages for one ward

Interventions

The following interventions were implemented to reduce time spent and also paper wastage in the process.

- ❖ Collation and preparation of respective ward wastage list in soft copy.
- ❖ Send mass e-notification with wastages list via email to SGH nurse manager group instead of faxing individually to respective wards.
- ❖ Additional reminder email to be sent 2 days before actual HSA appointment date (follow up).
- ❖ Do away with printing hard copy wastage list for purpose of notifying nursing.



Figure 5: Improved CD wastages process

		Pethidine 50mg/ml inj		Fentanyl 100mcg/ 2ml inj		Fentanyl 12mcg/h r patch		Fentanyl 25mcg/h r patch		Fentanyl 50mcg/h r patch		Fentanyl 500mcg/ 10ml inj		Ketamine 100mg/2 ml inj		Ketamine 500mg/1 0ml inj		Methadone 5mg tab		Methylphenidate HCl 10mg Tab		Methylphenidate LA 20mg Cap		Morphine 10mg/ml Inj		Morphine Sulfate SR 10mg Tab		
Location	Date	E	W	B	E	W	B	E	W	B	E	W	B	E	W	B	E	W	B	E	W	B	E	W	B	E	W	B
W53C	31/10/2018																											1
W58ID	08/11/2018						1																					

Figure 6: Excel List which includes the location, date, drug & wastages (Expired (E), Wastages (W), Broken (B))

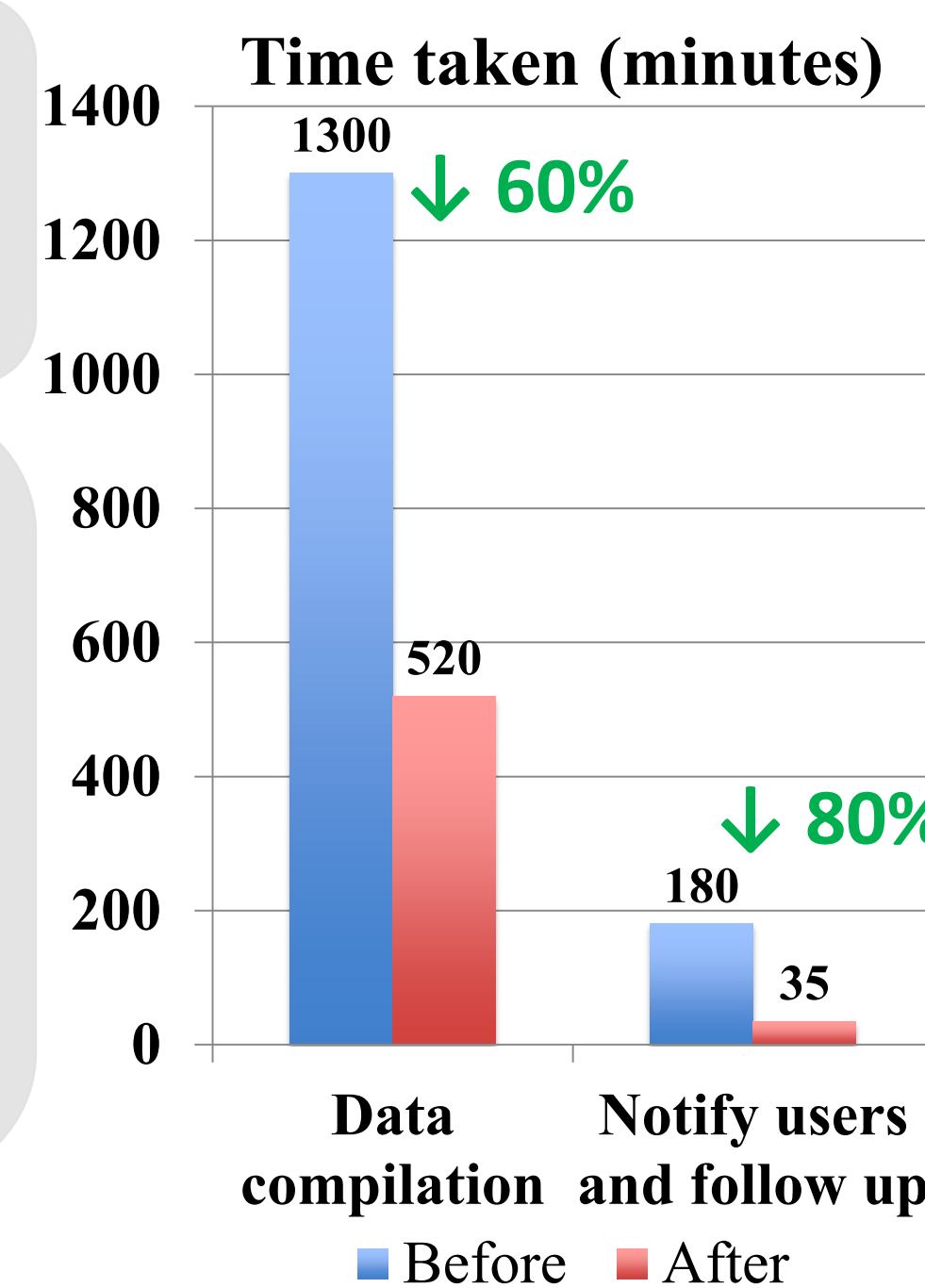
Results

SAVE PAPER

- Wastages received will be keyed in the excel sheet and an e-notification attached with the excel sheet will be send out directly to users.

SAVE TIME

- Time spent for consolidating wastages list for HSA can be auto populated using the excel count and sum function
- After implementation of mass e-notification, the time taken to notify users has been reduced to 15 minutes.



- ❖ Time spent on:

- ✓ Data Compilation ↓ by 60%
- ✓ Notify User and follow up ↓ by 80%

Figure 7: Time spent for each CD destruction cycle

Conclusion and Sustainability Plans

Development of excel template using excel count and sum function has cut down preparation time in collation of data. The implementation of e-notification have lead to a decrease of time taken further and paper used in the entire process. A decrease of more than 60% in time spent can be established after implementation of a new process. As this is a biannual process, we are unable to plot a run chart to document the time saved. The interventions done has translated into manpower savings of \$1,326.51 per year. To ensure the work process are sustainable, data keyed in to the excel must be accurate which include date, item and the wastage details (broken, expired or wastage). This will facilitate users' reference and reduce phone calls enquiries.