The Journey of Transitions of Care in an Urban Community Teaching Hospital

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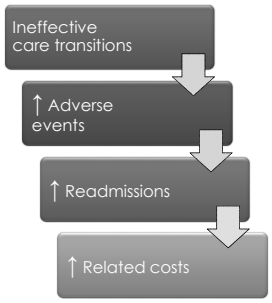
Objectives

- Discuss key elements for Transitions of Care programs
- Explain the workflow of a transitions of care pharmacist
- Describe the process of creating the service
- Identify specific interventions that can be incorporated into existing pharmacy workflow to improve transitions of care

The speaker has no actual or potential conflicts of interest to disclose

What is Transitions of Care?

"Movement of patients between health care practitioners, settings, and home as their condition and care needs change."

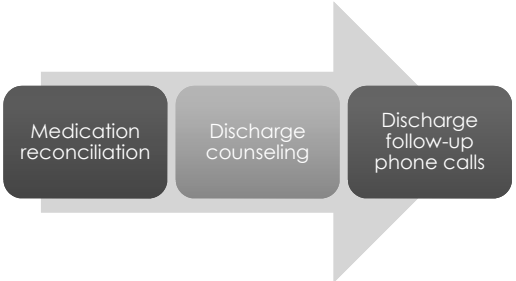


Transitions of Care: The need for a more effective approach to continuing patient care. Hot Topics in Healthcare.

Importance of Transitions of Care

In 2011, inadequate transitions of care resulted in 24-45 billon dollars through avoidable complications and unnecessary readmissions

Key Pharmacist Elements of Transitions of Care



Cassano A, Reilly C, Mehta S, et al. ASHP-APhA Medication Management in Care Transitions Best Practices.

Reflection Question: Which Intervention Most effectively Reduces Readmissions?

A) Medication reconciliation

B) Discharge counseling

C) Discharge follow-up phone calls

D) Combination of multiple interventions

E) None of the above

What is Most Effective?

- One transitions of care intervention alone has not shown to reduce readmissions
- Interventions are most effective when bundled together
- Best combination of interventions not yet identified

Ann Inter Med. 2011;155(8).

Studies with Multiple Interventions

Pharmacist Led REACH Interventions

- Medication reconciliation
- Patient-centered education
- Access to care
- MTM and counseling
- Follow up phone calls

- 2018: Einstein Healthcare Network in Philadelphia
  - Lower readmission rates for patients who received all interventions vs. patients who did not ($P < 0.001$)
  - Study suggests that even selective interventions favor reduction in readmissions

Am J Health Syst Pharm. 2018;75(9).

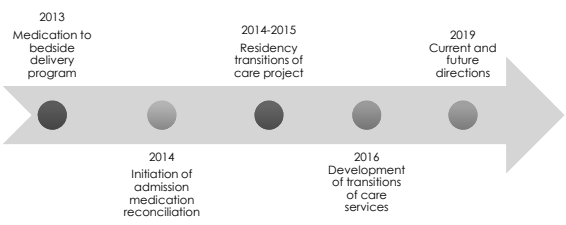
IPITCH Study

2016: Northwestern Memorial Hospital investigated the impact of a pharmacist in transitions of care

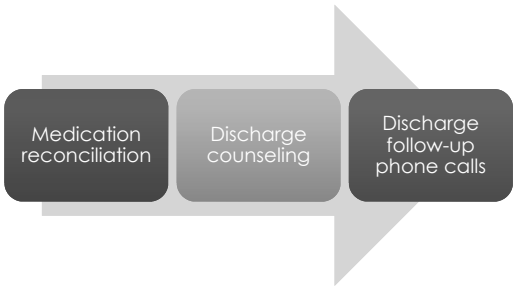
- Decreased composite inpatient and ED readmissions ($P = 0.001$)
- No difference observed in medication-related adverse events at 30 day phone follow up ($P = 0.22$)

J Hosp Med. 2015;11(1).

The Journey



Key Pharmacist Elements of Transitions of Care



Cassano A, Reilly C, Mehta S, et al. ASHP-APhA Medication Management in Care Transitions Best Practices.

Points of Medication Reconciliation

RXM Fill History

Updated 03/18/19 for last 1 year — Add Disclaimer Update

Ibuprofen TABLET 600 MG0S: 10/ #30	03/02/19	Walgreens	meds-xml-Rcopia...
+ Aspirin EC TABLET,DR 81 MG0S: 30/ #30	02/18/19	Osco Drug	meds-xml-Rcopia...
+ Risperidone TABLET 1 MG0S: 30/ #60	02/18/19	Osco Drug	meds-xml-Rcopia...
+ Atorvastatin Calcium TABLET 20 MG0S: 30/ #30	02/18/19	Osco Drug	meds-xml-Rcopia...
+ Metoprolol Tartrate TABLET 25 MG0S: 30/ #30	02/18/19	Osco Drug	meds-xml-Rcopia...
+ Bupropion XL TAB.ER.24H 150 MG0S: 30/ #30	02/18/19	Osco Drug	meds-xml-Rcopia...
+ Eliquis TABLET 5 MG0S: 30/ #60	02/18/19	Osco Drug	meds-xml-Rcopia...
Nicotine Patch PATCH,TD24 1 EACH0S: 28/ #28	01/22/19	Osco Drug	meds-xml-Rcopia...
+ Metoprolol Succinate ER TAB.ER.24H 50 MG0S: 30/ #30 1K 1 1 PO D Prescriber: Gaurang Garg Phone: 312-926-2000	12/11/18	Walgreens at NM...	meds-xml-Rcopia...

Patient WLW 61 ♂

Medical Hx

- Presented with CP
- PMHx: CHF EF: 15-20%, COPD, nonvalvular Afib
- CHADSVASC 3
  - INR: 1.1 at discharge
- CrCl ~88 ml/min
- Wt: 72 kg

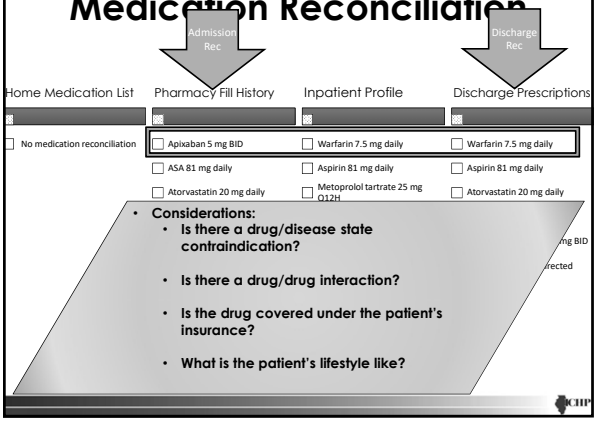
Pertinent social and insurance Hx

- Homeless
- Limited transportation
- Patient's insurance fully covers apixaban

Medication Reconciliation

Home Medication List	Pharmacy Fill History	Inpatient Profile	Discharge Prescriptions
☐ No medication reconciliation	☐ Apixaban 5 mg BID	☐ Warfarin 7.5 mg daily	☐ Warfarin 7.5 mg daily
	☐ ASA 81 mg daily	☐ Aspirin 81 mg daily	☐ Aspirin 81 mg daily
	☐ Atorvastatin 20 mg daily	☐ Metoprolol tartrate 25 mg Q12H	☐ Atorvastatin 20 mg daily
	☐ Metoprolol tartrate 25 mg daily	☐ Atorvastatin 20 mg daily	☐ Lisinopril 2.5 mg daily
	☐ Bupropion XL 150 mg daily		☐ Metoprolol tartrate 25 mg BID
	☐ Risperidone 1 mg BID		☐ Permethrin 1% as directed
	☐ Ibuprofen 600 mg TID PRN		

Medication Reconciliation



Practice Question: What is the Best Anticoagulant Choice for WLW?

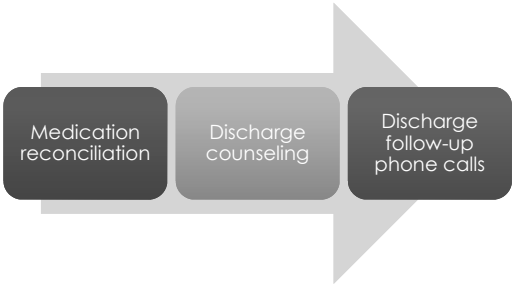
A) Continue warfarin and target INR goal of 2-3

B) Switch back to apixaban 5 mg BID

C) Discharge home on enoxaparin 80 mg Q12H

D) None of the above

Key Pharmacist Elements of Transitions of Care



Cassano A, Reilly C, Mehta S, et al. ASHP-APhA Medication Management in Care Transitions Best Practices.

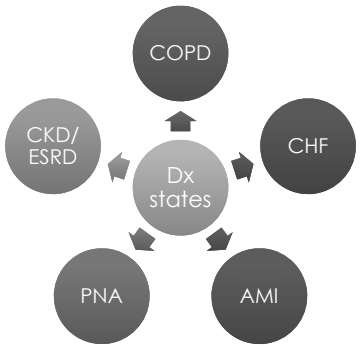
Discharge Follow-Up Phone Calls

- Project Re-Engineered Discharge (RED) recommends phone call within 72 hours post discharge
- Opportunity for following:
  - Assess adherence and understanding
  - Clarify discrepancies
  - Proactively resolve cost barriers
  - Address questions
  - Re-iterate appointments

Ahrq.gov. (2013). *Tool 5: How To Conduct a Postdischarge Followup Phone Call.*

Target High Risk Patients

High Risk Co-morbidities



Guide to Reducing Disparities in Readmissions.

Patient RS 60 ♀

- Admitted for chest pain
- A1c 11.1%
- Not taking any medications for DM
- Patient has history of non-compliance
- LACE score = 12
- Patient discharged home on glargine + metformin
- Patient counseled extensively at discharge on DM regimen
- No family or friends at bedside

Patient RS 60 ♀

- Upon follow up phone call, you speak with her daughter who is her caregiver and POA

- **Opportunity for following:**
  - **Engage patient's daughter in discharge plan**
  - **Educate on significance of elevated A1c**
  - **Encourage and support questions or concerns the patient or daughter may have**
  - **Remind about follow up appointments**

Tools to Amplify Effectiveness

Predict patients at high risk of readmissions that are potentially avoidable

JAMA Intern Med. 176(4).
Picture from: Microsoft Clipart

LACE Tool

Tool to identify patients who are at high risk of an unplanned readmission or death:

Length of stay

Acuity of admission; planned versus unplanned

Co-morbidities assessed using the Charleston Co-morbidity Index

Emergency department visits within the last 6 months, not counting the current admission

Protecting and Enhancing Revenue for Hospitals. (2019). *How to calculate the LACE risk score - BESLER*

LACE Calculator

LACE index:	
2 days	2
3 days	3
4–6 days	4
7–13 days	5
≥14 days	7
Acute or emergent admission	3
Charlson comorbidity index score	
0	0
1	1
2	2
3	3
≥4	5
Visits to emergency department in previous 6 months	
0	0
1	1
2	2
3	3
≥4	4

Step 3. Comorbidities

Condition (definitions and notes on reverse)	Score (circle as appropriate)
Previous myocardial infarction	+1
Cerebrovascular disease	+1
Peripheral vascular disease	+1
Diabetes without complications	+1
Congestive heart failure	+2
Diabetes with end organ damage	+2
Chronic pulmonary disease	+2
Mild liver or renal disease	+2
Any tumor (including lymphoma or leukemia)	+2
Dementia	+3
Connective tissue disease	+3
AIDS	+4
Moderate or severe liver or renal disease	+4
Metastatic solid tumor	+6
TOTAL	

If the TOTAL score is between 0 and 3 enter the score into Box C. If the score is 4 or higher, enter 5 into Box C

C

Peer J. 2017;5:e3137
Protecting and Enhancing Revenue for Hospitals. (2019). *How to calculate the LACE risk score - BESLER*

HOSPITAL Score

Criteria to identify patients at risk for potentially avoidable readmissions

Criteria	Point
Hemoglobin < 12 g/dL	1
Discharge from oncology service	2
Low Na^+ at discharge	1
Procedure during hospital stay	1
Non-elective admission	1
Hospital admission during previous year	0 = 0, 1-5 = 2 ≥ 6 = 5
Length of stay ≥ 5 days	2

JAMA Intern Med. 176(4).

HOSPITAL vs. LACE Score

HOSPITAL score

- Internally and externally validated
- Externally validated in the United States
- C-statistic: 0.72
- Able to calculate prior to discharge
- Clinical factors for calculation
- One calculator to obtain score

LACE score

- Internally and externally validated
- Has not been validated in the United States
- C-statistic: 0.68
- Calculate after discharge
- Administrative factors for calculation
- Requires two calculators to obtain score

Am Fam Physician. 94(4):307-309
JAMA Intern Med. 176(4).

HOSPITAL vs. LACE Score

HOSPITAL score		LACE score	
0 - 3	• Low risk	0 - 4	• Low risk
5 - 6	• Intermediate risk	5 - 9	• Moderate risk
≥ 7	• High risk	≥ 10	• High risk

Score Utilization

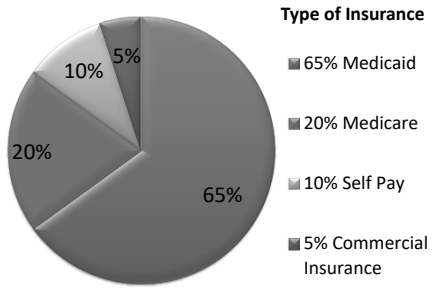
- 2014: Saint Agnes Hospital utilized LACE scores for discharge medication review and education by pharmacist
  - Significance in reduction of readmissions in patients with LACE score 9-12 (P = 0.0075)
- 2015: Clinical Nurse Leaders called patients post discharge; LACE scores later identified
  - Phone call vs. no phone call in patients with ↑ LACE scores (P = 0.53) ↓ in trend
- HOSPITAL score utilized as predication tool
  - No studies identified for use as an intervention tool

Pharmacist utilization of the LACE tool to prevent hospital readmissions. J Nurs Care Qual. 2014;30(1):63-70.

About Mount Sinai Hospital

- Teaching hospital located in the west side of Chicago
- 320 bed hospital with 16,400 admissions and 48,100 emergency department visits annually

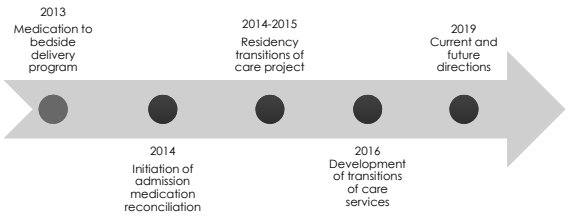
Insurance Payers at Mount Sinai Hospital



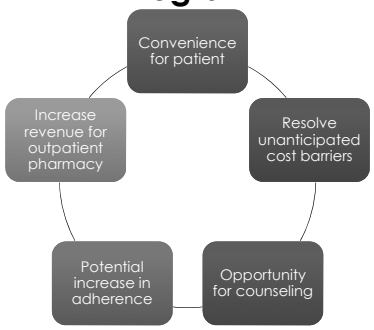
Implications

- Several drugs require prior authorization (PA)
- Fixed pricing
- Limited and strict drug formulary covered

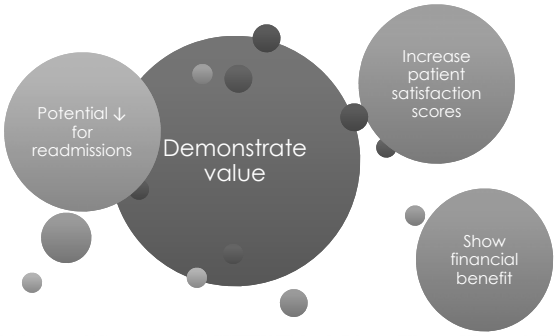
The Journey



Utilization of Bedside Delivery Program



Presentation to C-Suite



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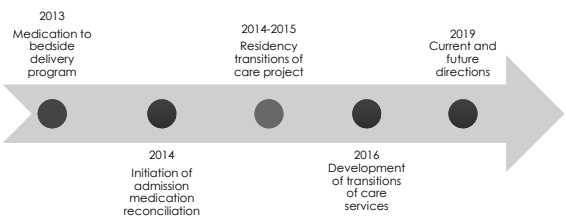


Resident Methods

Admission

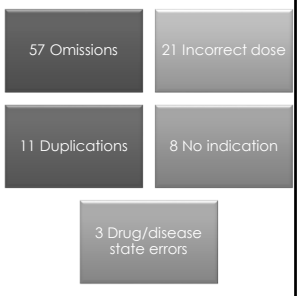
- Obtained medication history
- Promoted medication to bedside delivery program

Discharge

- Collected prescriptions and conducted medication reconciliation prior to discharge
- Contacted physicians to correct discrepancies
- Counseled patient on new medication regimen

Discrepancies

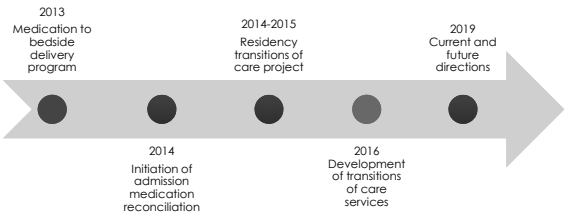
- 254 patients screened, 56 included
- 1009 admission and discharge medications reviewed
- 1 Intervention per patient required
  - Medication omission most common intervention
- Severity of interventions:
  - 8% Critical
  - 17% Moderate
  - 75% Mild or no harm



Observations

- Observed subset of patients for 60 days
- Each patient served as their own control from previous readmissions (n=32)
- **↓ 39% in 30-day readmissions**

The Journey



The Crew

Positions

- 2 FTE pharmacists
- 1 FTE delivery technician

Responsibilities

- **Pharmacists**
  - Review discharges and counsel patients on 3 internal medicine units
  - Discharge follow up phone calls
- **Technician**
  - Delivers prescriptions to 3 internal medicine units, trauma/surgery floor, and heme/onc outpatient clinic

Presentation to C-Suite

- ↓ In medication errors
- Empower and educate patients
- Bedside delivery program
- Cost benefit to hospital

Early Observations

Mount Sinai Hospital
1500 S Fairfield Ave
Chicago, IL 60608

John Smith
DOB: 1/1/1960

Humalog 100 units/mL
Inject 40 units subcutaneously twice daily before meals
#1 vial, 0 refills

A Doctor, MD
NPI: 1234567890

A. Doctor

- Upon review, the resident intended to prescribe Humulin® 70/30 and NOT Humalog®
- Prescribed at discharge: was not identified by an inpatient pharmacist

Increase in Patient Knowledge

Increase in knowledge in new medications and changes → Promotes medication adherence → Goal to increase outpatient care versus inpatient care

Cost Benefit to Hospital

Reduction in medication errors	Patient education	Bedside delivery
• Reduced adverse events	• Patient aware of medication changes and/or new medications	• Cost barriers addressed **prior to discharge**

All of these components ultimately have the potential for reduced hospital admissions!

Transitions of Care Service Functions

- Medication reconciliation
- Discharge patient counseling
- Discharge follow up phone call based on LACE score
- Remove cost barriers by therapeutic alternatives and prior authorizations

Daily Schedule

Time	Task
9:30 AM – 10:30 AM	• Review patient profiles • Interview to gather pertinent information • Conduct follow up phone calls
10:30 AM – 11:30 AM	• Multidisciplinary rounding • Case manager, social worker, residents, nurses
11:30 AM – 1 PM	• Perform medication reconciliation
1:30 – 6 PM	• Perform medication reconciliation • Counsel patients • Submit prior authorizations • Calculate LACE scores and conduct follow up phone calls

Which Transitions of Care Components are Implemented at Your Hospital?

What Can You Implement?

- Admission and discharge medication reconciliation
  - Thorough assessment of all medication lists and allergies
  - Call pharmacies, clinics and/or family members
  - Utilize layered learning
- Patient counseling
  - Target high risk patients
  - Utilize layered learning
- Follow up phone calls
  - Call high risk patients 48-72 hours post discharge
  - Utilize layered learning and technicians

Prior Authorizations and Insurance Coverage

- Covermymeds.com
  - Platform to submit prior authorizations electronically
- Formulary MMIT
  - Platform to search multiple health plans to seek coverage

Picture from: http://pulmonaryhypertensionrn.com/blog/prior-authorization-for-ph-medications/

How to Use Formulary MMIT

- Type in the drug
- Enter your location
- Select your patient's insurance
- Review coverage

Example: IDPA Patient on Apixaban

Hiring?

Transitions of Care Pharmacist Qualifications

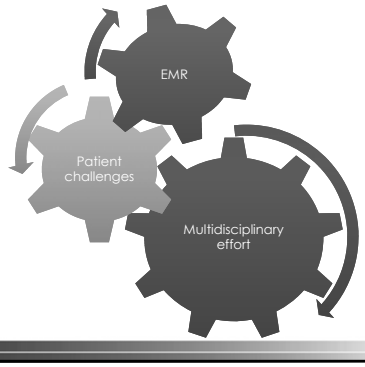
Experience sought

- Community or ambulatory care residency
- Understanding of outpatient terminology
  - Prior authorization
  - Copay
  - Refill too soon
  - Plan exclusion
- Familiarity with insurance companies

Skills desired

- Communication
  - Patients , prescribers, nurses
- Disease state management
- Ability to multi-task

Limitations



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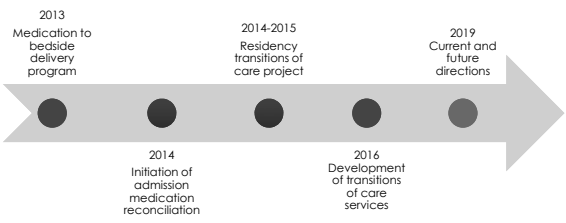
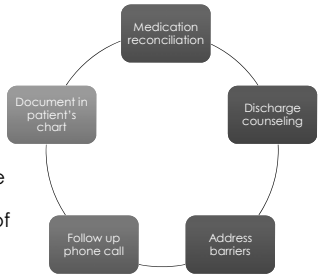


Current Endeavors

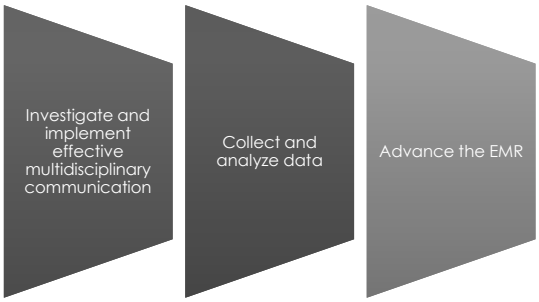
Description and purpose

- Requesting service enters cardiology consult for acute myocardial infarction (AMI)
- Goal: to ensure AMI patients have multiple touch points for improved Transitions of Care and follow up

Intervention



Future Endeavors



Practice Question: Which Tool Takes Into Account Clinical Factors and Can be Calculated During Hospitalization?

A) LACE score

B) HOSPITAL score

C) Both scores

D) None

Practice Question: Which Pharmacist Intervention Would Benefit Both Inpatient and Transitions of Care Pharmacists?

A) Discharge follow up phone calls

B) Patient counseling

C) Medication reconciliation

D) All of the above

References

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Questions?

Save – Important Information

Continuing Pharmacy Education (CPE) Program Instructions to Process Credit

CPE Program: **The Journey of Transitions of Care in an Urban Community Teaching Hospital**
(Pharmacist-specific credit available)

Program Date: **April 18, 2019**

Access Code: _____
Announced at the session. You will need this to process your credit.

CPE Processing Deadline: by end of day June 1, 2019.

Please honor the deadlines! Do NOT Delay in completing your CPE processing. If you encounter problems, we will need time to assist you before the deadline. Once the CPE Monitor deadline passes we are unable to upload your CPE credit into the CPE Monitor system due to the system restrictions put in place by ACPE and NABP. If you miss the deadline you will NOT receive credit for this program!

Sign In Sheets: Please be sure and sign the Attendance Sheet to confirm your presence for our records. Attendance sheets will be emailed or faxed to the ICHP office for the ACPE file. ACPE requires we confirm that live attendance matches those processing online CPE credit.

Detailed instructions to complete evaluations online:

Participants in this CPE program - You will need your own account on **CESally.com** as an ICHP association member in order to access the CPE program, do the evaluation, and submit for credit. This NISHP CPE is free to ICHP members. Non-members please contact ICHP to request CE.

PLEASE NOTE: Only ICHP members who have requested / accepted the ICHP association link on CESally and created an account will be able to SEE and access ICHP member programs on CESally.com. For information on how to REQUEST and / or ACCEPT the members' invitation please go to the new link: http://www.ichpnet.org/pharmacy_practice/cesally/.

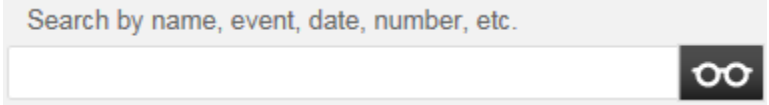
To set up your account and process your CPE credit:

1. Go to www.CESally.com and click on "Sign Up!" **Or log in** with your existing account. Go to your Account page and accept the association invitation in the right side column, if you have not already done so.

Or **REQUEST** an invitation to join ICHP on this Account page. We authorize requests throughout the day.
Important: You will need to maintain a valid email address.

- If NEW to CESally.com, to complete the Sign Up process, you will select a username and password. For HELP at any point, click on the HELP tab or go to: https://www.cesally.com/help/.
- Enter your NABP eProfile ID and birth day as MMDD when prompted. CESally.com now checks with NABP/CPE Monitor in real time, to confirm the NABP eProfile and birth day are a valid account.

2. Once you have created your account, or logged in, and requested / received the ICHP association link on Your Account Page, use the Search Box in the upper right corner to find your activity by typing in the title.

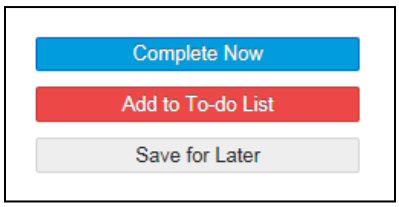


- Program(s) will appear in boxes as Search Results.
- Please select the correct program, identified as either Pharmacist or Technician.

NOTE: If the title does not appear to you when you search, that means you are not logged in as an ICHP association member and / or have not requested / accepted the ICHP member link on CESally.com.

Save – Important Information

3. Click on the Activity title for the program you attended, and the information page will open; you will see your options in the right hand column on the information page. Select one.



4. To finish the process after choosing to **Complete Now**, **Save for Later**, OR **ADD to To-do List.**

a) If you choose **Complete Now, f**ollow the actions as directed on the webpage. You will verify your attendance, provide the session ACCESS code given to you during the program, and complete an evaluation of the activity and the speaker(s). The status box indicates where you are in the process.

b) If you **Save for Later** or **Add to To-do List**, when you are ready to complete, please go to the appropriate webpage (tabs are labeled To Do List or Saved for Later).

c) Click on **Start To-do List.** Follow the actions as directed on the webpage. You will verify your attendance, provide the session ACCESS code given to you during the program, and complete an evaluation of the activity and the speaker(s). The status box indicates where you are in the process.

5. Click **Go To Next Step** at the bottom of the page, as you finalize each step in the process.

6. Click on **Report CE**. Your CPE credit will be uploaded to CPE Monitor automatically upon **successful** completion and **submission** of your evaluation.

7. If an error occurs, the system will tell you on the screen so please wait for any error messages. CPE Monitor will not accept your submission if there are any errors, and your credit will NOT be reported to CPE Monitor. ***Please confirm your submissions.***

8. Go to www.NABP.net and CLICK on the CPE Monitor link to log into your personal CPE Monitor account to download an official statement of credit or full transcript.

If you have any questions, please contact ICHP at members@ichpnet.org.

Please remember the ICHP processing deadline is by end of day June 1, 2019.

Thank you!