

Transitions of Care: Identifying and Maximizing Your Role as a Pharmacist in Community, Hospital, Ambulatory Care, and Long-term Care Settings

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CONFLICT OF INTEREST

Nothing to Disclose

OBJECTIVES

Identify

Identify specific transition deficits most in need of and appropriate for pharmacist intervention.



Describe

Describe efficient and effective pharmacist activities in community, hospital, ambulatory care, and long-term care settings that identify and resolve care transition issues.



Discuss

Discuss reasonable implementation strategies for pharmacist care transition activities.



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OBJECTIVE 1:
IDENTIFYING
GAPS AND
OPPORTUNITIES

TRANSITION OF CARE (TOC) GAPS AND OPPORTUNITIES

- Almost 20% of patients experience ADE within 3 weeks of discharge
- Medication errors each year:
 - Harm 1.5 million people
 - Cost nearly \$3.5 Billion
- Estimated 60% of all medication errors occur during transitions and lead to:
 - Readmissions
 - ER visits
 - Post-acute stays



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TOC CHALLENGES -
INPATIENT, LTC,
AMBULATORY CARE



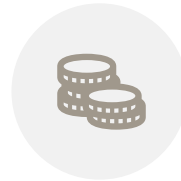
TIME



MANPOWER



COMPETING
RESPONSIBILITIES



ADMINISTRATION
BUY-IN



TECHNOLOGY /
SYSTEMS

TOC CHALLENGES - COMMUNITY

- Medications are often changed following hospital, long-term care, and even ER discharge, and communication between primary care practitioners and facilities is either late or non-existent.
- Knowing diagnosis, duration of therapy, and follow-up strategies are crucial to providing accurate medication choices, but often are not provided.
- There is no means to be reimbursed for impactful TOC services currently in the community pharmacy setting.

HOW WE GOT HERE

- **Primary Care Providers** no longer driving care
- **Specialists** never just one
- **ER**-where we start to lose control
- **Hospital Stay**

PRIMARY CARE OFFICE

- Understanding the daily chaos
- Electronic records not our friend
- 5 minute visits
- Detective work each and every visit
- Do not need pcp blessing to see specialist
- Hospital, surgery or off the cuff decisions blind side pcp daily

Tasked to call everyone who impacted their patient care -that means you have to reach a human being to get the information each step of the way-**IMPOSSIBLE**

SPECIALIST

- Average patient has 3 or more
- Decisions based on the speciality goal
- Communication rare
- Primary care office out of the loop

Most will send letter to primary care office, however do they usually get it???

EMERGENCY ROOM

- All about survival for patient and clinical team
- Laser focused on what brought them in
- Tunnel vision to stabilize and move to next level or discharge

Call to primary care office???? Discharge Summary??? Current Medications???

HOSPITAL STAY

- Starting with the diagnosis that brought patient in
- Dealing with medication list that hospitalist created
- Getting patient to discharge with own game plan
- Add in specialists during the stay
- Discharge on medication list to get them to follow up appointments

Discharge summary????? Discharge packet?????

POST ACUTE REHAB

- **GOAL : REHAB/KEEP stable ONLY**
- Chronic diseases are why patients readmit not the primary diagnosis
- Not rehab job to mess with the madness
- Medications are a challenge

Throw in return to hospital which repeats the nightmare and we start over

OBJECTIVE 2:
IDENTIFYING
SOLUTIONS



WHAT WORKS - INPATIENT, AMBULATORY CARE, LTC

Improvement in:

- 30-day readmission rates
- Medication-related admissions
- Emergency department visits
- Patient satisfaction
- Costs

Regardless of population targeted

Follow-up interventions the most impactful

Successful interventions include:

- Medication reconciliation
- Patient education
- Improved medication access
- Medication adherence tools
- Discharge plan development
- HCP follow-up
- Patient follow-up:
 - Home visits
 - Phone calls
 - Clinic follow-up
 - Combination

WHAT WORKS - INPATIENT, AMBULATORY CARE

Care Transitions Intervention (CTI)

Transitional Care Management (TCM)

Better Outcomes for Older Adults through Safe Transitions
(BOOST)

Project RED (Re-Engineered Discharge)

**Multi-Center Medication Reconciliation Quality
Improvement Study (MARQUIS)**

What Works Inpatient – MARQUIS

- Mentored QI study
- Developed toolkit of best practices for med rec
 1. Define med rec
 2. Assign roles and responsibilities
 3. Access to pre-admission medications sources
 4. Encourage patient-owned lists
 5. Educate providers on taking BPMH
 6. Discharge edu includes teach back
 7. Risk stratify patients
 8. Differentiating process for high risk
 9. Implement/improve electronic med rec apps
 10. Phased approached to CQI
 11. Social marketing and community resources for QI

What Works Inpatient – MARQUIS

- Mean ~3 discrepancies per patient (0.45 potentially harmful)
- Significant reduction in potentially harmful discrepancy rates with:
 - Hiring additional staff
 - Train existing staff for high-risk patients
 - Clearly defining roles and responsibilities
- New EHR vendor → negative effect
www.hospitalmedicine.org/marquis

What Does Med Rec Involve?

1. Taking a “Best Possible Medication History” (BPMH)
2. Writing orders based on medication history
3. Comparing regimens across transitions (e.g., preadmission, current inpatient, discharge)
4. Updating lists and orders as more information becomes available
5. Identifying and correcting discrepancies
6. Communicating with patient re: how new regimen is different from the old regimen (new, changed, stopped)
7. Communicating with next provider/site of care

Goal → Obtain complete information on the patient's medication regimen, including:

- Name of each medication
- Formulation (e.g., extended release)
- Dosage, Route, Frequency
- Non-prescription medications (e.g., herbals, OTCs, vitamins)

Try to **use at least two sources of information** and explore discrepancies between the different sources

If your starting point is a medication list:

- Review and verify each medication with the patient.
- Best to start by having the patient tell you what he or she is taking; **don't read the list aloud asking if it is correct**

Questions to elicit a complete medication list:

- For each medication, elicit the dose and time(s) of day taken.
- When appropriate, ask about formulation and route of administration.
- Start with an open-ended question: What medications do you take at home?
- Use Probing Questions (on the back) to minimize missed medications

Time-saving tips:

- ✓ Start with easily accessible sources (e.g., outpatient EMR med list, recent hospital discharge orders)
- ✓ If patients use a list or pill bottles and seem completely reliable (and data are not that dissimilar from the other sources, and/or the differences can be explained), then other sources not needed.
- ✓ If patients are not sure, relying on memory only, or cannot clearly "clean up" the other sources of medication information, then use additional sources such as community pharmacy data.
If the medication history is still not clear (e.g., suspected differences between what the patient is supposed to be taking and what they actually take) then contact outpatient physician office(s) and/or have the family bring in the pill bottles from home.

CASE STUDY 1

Pre-call to pharmacy

- Aspirin 325 mg
- Fluticasone nasal spray
- Carvedilol 25 mg BID
- Lisinopril 10 mg daily
- Fish Oil 1000 mg daily
- Clopidogrel 75 mg daily

Post-call to pharmacy

- Carvedilol 25 mg BID
- Lisinopril 10 mg daily
- Levothyroxine 75 mcg daily
- Fish Oil 1000 mg daily
- Clopidogrel 75 mg daily



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CASE STUDY 1

Medication list after patient interview:

- Aspirin 81 mg
- Carvedilol 25 mg BID
- Lisinopril 5 mg daily
- Fish Oil 1000 mg daily
- Clopidogrel 75 mg daily

CASE STUDY 2

You are conducting a post-discharge follow-up phone call.

When asked about medication changes, the patient asks if he should resume his Tylenol PM as listed in his discharge medication instructions.



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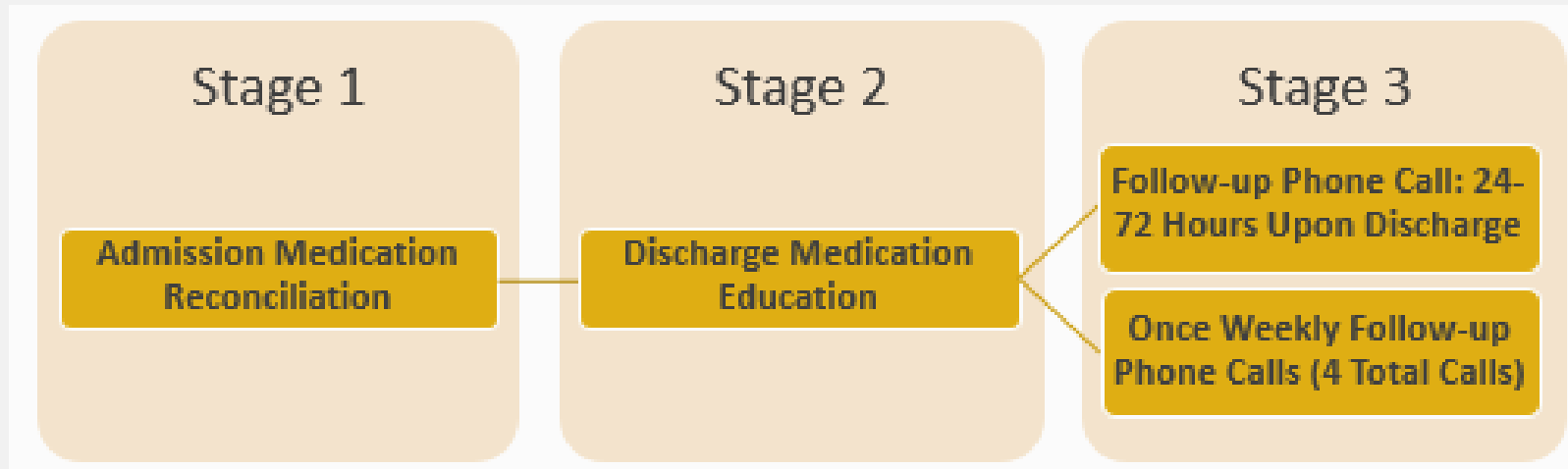


CASE STUDY 2

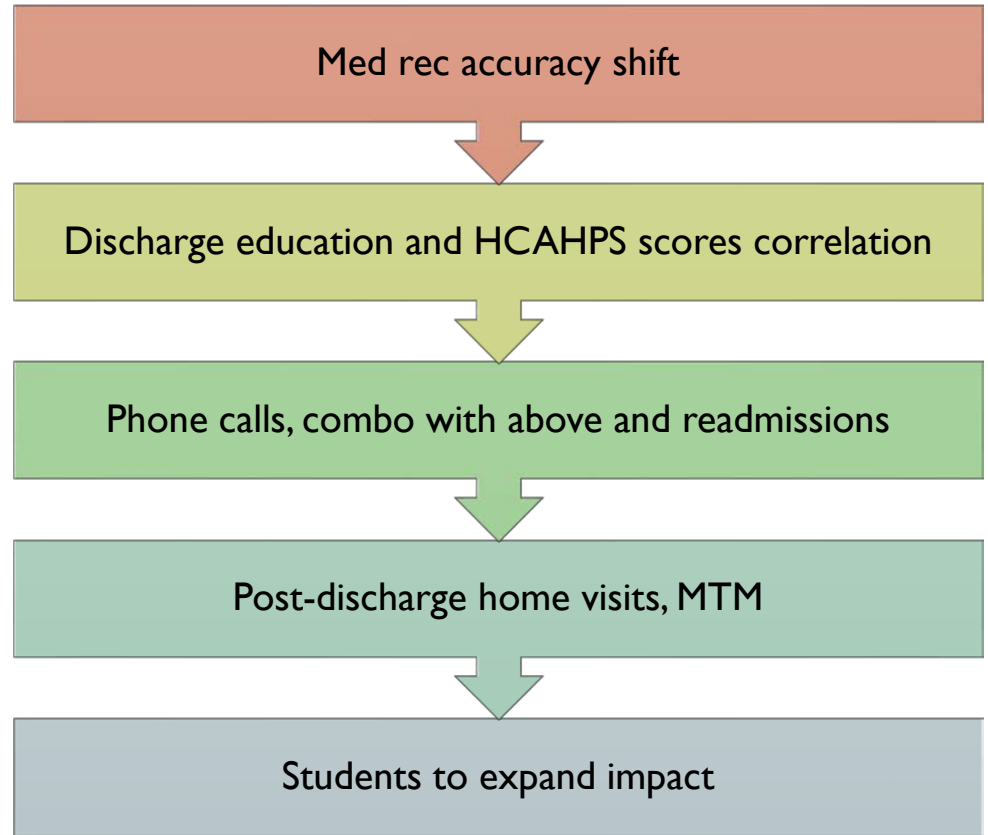
Discharge instructions:

- CONTINUE TAKING:
 - Aspirin 81 mg
 - Ranitidine 150 mg
 - Metoprolol 25 mg
 - Acetaminophen PM
- STOP TAKING:
 - Doxycycline 100 mg
- START TAKING:
 - Levofloxacin 750 mg

WHAT WORKS - INPATIENT PHARMACY EXAMPLES



WHAT WORKS -
INPATIENT PHARMACY
EXAMPLES



WHAT WORKS – AMBULATORY CARE: TCM

“TCM includes services provided to a patient with medical and/or psychosocial problems requiring moderate or high-complexity medical decision making...[and] involve a transition of care from”

TOC can be from:

- Inpatient acute care hospital
- Inpatient psychiatric hospital
- Long-term care hospital
- Skilled nursing facility
- Inpatient rehabilitation facility
- Hospital outpatient observation or partial hospitalization
- Partial hospitalization at a community mental health center

AMBULATORY CARE: TCM BILLING

CPT Code 99495 :

- Communication (direct contact, telephone, electronic) with the patient and/or caregiver within two business days of discharge
- Medical decision making of at least **moderate** complexity during the service period
- Face-to-face visit **within 14 calendar** days of discharge

CPT Code 99496

- Communication (direct contact, telephone, electronic) with the patient and/or caregiver within two business days of discharge
- Medical decision making of **high** complexity during the service period
- Face-to-face visit **within seven calendar days** of discharge

AMBULATORY CARE: TCM ACTIVITIES

- Communication (direct contact, telephone, electronic) with the patient and/or caregiver within two business days of discharge
- Communication with home health agencies and other community services utilized by the patient
- Patient and/or family/caretaker education to support self-management, independent living, and activities of daily living
- Assessment and support for treatment regimen adherence and medication management
- Identification of available community and health resources
- Facilitating access to care and services needed by the patient and/or family
- Obtaining and reviewing the discharge information (e.g., discharge summary, as available, or continuity of care documents)
- Reviewing need for, or follow up on, pending diagnostic tests and treatments
- Interaction with other qualified health care professionals who will assume or reassume care of the patient's system-specific problems
- Education of patient, family, guardian, and/or caregiver
- Establishment or re-establishment of referrals and arrangement of needed community resources
- Assistance in scheduling any required follow up with community providers and services

AMBULATORY CARE: TCM ACTIVITIES

- Communication (direct contact, telephone, electronic) with the patient and/or caregiver within two business days of discharge
- Patient and/or family/caretaker education to support self-management, independent living, and activities of daily living
- Assessment and support for treatment regimen adherence and medication management
- Obtaining and reviewing the discharge information (e.g., discharge summary, as available, or continuity of care documents)
- Education of patient, family, guardian, and/or caregiver

WHAT WORKS - COMMUNITY PHARMACY¹

- Completing comprehensive medication reviews (CMRs) within 7 days post-discharge has shown to significantly improve 30 day readmission rates.
- Medication reconciliation post-discharge can facilitate a smoother transition from the inpatient setting back to primary care, which also decreases 30 day readmission rates.

¹Luder HR, Frede SM, Kirby JA, Epplen K, Cavanaugh T, Martin-Boone JE, Conrad WF, Kuhlmann D, Heaton PC. "TransitionRx: Impact of community pharmacy postdischarge medication therapy management on hospital readmission rate." *J Am Pharm Assoc.* 2015;55:246-254

TRANSITIONRX¹

- Study conducted at 9 Kroger stores over 14 months.
- 90 participants, 30 in the intervention group and 60 in the usual care group
- Intervention consisted of face-to-face MTM services conducted within 7 days of discharge from facility.
 - MTM services consisted of medication reconciliation, CMR, and disease education
- A two week follow up call was completed by a pharmacist and a 30 day call to assess readmission to hospital was completed by a research assistant .

¹Luder HR, Frede SM, Kirby JA, Epplen K, Cavanaugh T, Martin-Boone JE, Conrad WF, Kuhlmann D, Heaton PC. “TransitionRx: Impact of community pharmacy postdischarge medication therapy management on hospital readmission rate.” *J Am Pharm Assoc.* 2015;55:246-254

TRANSITIONRX¹ - RESULTS

- Pharmacist Intervention group had a significantly larger number of private insurance companies, and significantly more chronic comorbidities per patient as compared to the usual care group.
- Pharmacist Intervention group showed statistically significantly less 30-day readmissions as compared to the usual care group (7% to 20%.)
- Emergency department visits were also lower in the Pharmacist Intervention group (10% to 20%.)
- Pharmacists found 210 unique interventions among the 30 patients in the Pharmacist Intervention group.

¹Luder HR, Frede SM, Kirby JA, Epplen K, Cavanaugh T, Martin-Boone JE, Conrad WF, Kuhlmann D, Heaton PC. “TransitionRx: Impact of community pharmacy postdischarge medication therapy management on hospital readmission rate.” *J Am Pharm Assoc.* 2015;55:246-254

TRANSITIONRX¹ - TAKEAWAYS

- MTM Services do lead to decreased rates of readmission in recently discharged patients.
- Current strategies employed by facilities to perform transition of care services may not be as effective without a pharmacist presence.
- Performing medication reconciliation and medication review in a community pharmacy setting results in a large number of patient care interventions post-discharge.

¹Luder HR, Frede SM, Kirby JA, Epplen K, Cavanaugh T, Martin-Boone JE, Conrad WF, Kuhlmann D, Heaton PC. “TransitionRx: Impact of community pharmacy postdischarge medication therapy management on hospital readmission rate.” *J Am Pharm Assoc.* 2015;55:246-254

HEALTH INFORMATION EXCHANGE: HOHMEIER, ET.AL.²

Evaluated the use and feasibility of incorporating a Health Information Exchange (HIE) into a community pharmacy.

Evaluated pharmacist and technician perception, mapping steps involved in inclusion, and quantitatively reporting number of discordant medications found after completing a medication reconciliation

²Hohmeier KC, Spivey CA, Boldin S, Moore TB, Chisholm-Burns M. "Implementation of a health information exchange into community pharmacy workflow." J Am Pharm Assoc (2003). 2017 Sep - Oct;57(5):608-615

HOHMEIER, ET AL - RESULTS

- Some barriers to efficient and effective use of the HIE were reported.
- Not all patient data was presented in the HIE.
- All patients who had medication reconciliation performed had at least 1 discordant medication
- The average number of prescription medications per medication reconciliation patient was 14 (SD 6.5)
- **The average number of incongruent medications per medication reconciliation patient was 9 (SD 7.6)**

HOHMEIER, ET AL. - TAKEAWAYS

- HIEs can be very helpful in piecing together the transition of care puzzle when they are complete and available to community pharmacists
- Medication reconciliations provided upon arrival to community pharmacies, when paired with HIEs, can lead to significant opportunity for drug therapy problem identification and resolution

CLOSING SOME OF THE GAPS

- Education each step in the **Continuum**
- It takes a **TEAM**
- **Think Outside the BOX**
- It takes **Communication** and **Commitment**
- **GO OLD SCHOOL**

IT IS OUR JOB

OBJECTIVE 3: IMPLEMENTATION

TAKEAWAYS/TIPS: INPATIENT

- Medication reconciliation
 - Targeted assistance (risk, consults)
 - Admission medication verification
 - MARQUIS-based in-service to RNs
 - Dedicated position?
- Discharge education and HCAHPS
- Communication with community pharmacy
 - Encourage notes with e-Rx
 - Follow-up MTM referrals
- Using students helps!

TAKEAWAYS/TIPS: AMBULATORY AND LONG-TERM CARE

Ambulatory care

- TCM clinic development – joint or separate encounters
- Outside TCM: care transition mindset
- Communication with community pharmacy

Post-acute

- Mindset with DRR
- Medication reconciliation – admission and discharge
- Patient and provider education
- Communication with community pharmacy

TAKE-AWAYS/TIPS COMMUNITY PHARMACY

- Perform a CMR! (look for your Med D patients, or any others with insurance that allow CMRs to be billed, and offer this valuable service to them)
- Review/Update medication synchronization and automatic refill systems
- Perform a medication reconciliation post-discharge in your community pharmacy, and communicate with your patient's primary care team.
- Ask why they went into the hospital. They may not know they need two inhalers for COPD, but you do (and you can bill qualifying plans for that service too!)
- Utilize your students! Students can complete a medication reconciliation upon patient arrival and initiate a CMR with your patients without inducing additional labor

FINAL CASE STUDY

RK is a 58 yo caucasian male who presents to the ED with chest pain and severe SOB. Medical history is + for

- Diabetes (Type II)
- Hypertension
- Depression

He is rushed to the cath lab and undergoes an angioplasty for MI. He has now been admitted to the hospital.

TRANSITIONS OF CARE: INPATIENT SETTING

What things need to be addressed by the pharmacy team upon admittance to the hospital?

- Medication Reconciliation
- Coordination of care while in-patient
- Discharge medication reconciliation

MEDICATION RECONCILIATION

- metformin IR 1000mg by mouth twice daily
- fluoxetine 40mg by mouth once daily
- glyburide 5mg by mouth twice daily
- lisinopril/HCTZ 20/12.5mg by mouth once daily
- Lantus Solostar (glargine) 24 units subcutaneously at bedtime

INPATIENT MEDICATION ORDERS

- metoprolol succinate 100mg by mouth twice daily
- clopidogrel 75mg by mouth once daily
- rosuvastatin 20mg by mouth once daily
- morphine IR 15 mg by mouth every 4 hours as needed
- aspirin 81 mg by mouth once daily
- losartan 100mg by mouth once daily (hospital formulary)
- Humalog (insulin lispro) 20 units subcutaneously three times daily with meals
- Toujeo (insulin glargine) 24 units subcutaneously at bedtime (hospital formulary)
- metformin IR 1000mg by mouth twice daily
- sertraline 100mg by mouth once daily (hospital formulary)

INPATIENT DISCHARGE TO CARDIAC REHABILITATION CENTER

Patient receives 7 day supply prescriptions for medications utilized inpatient as follows:

- metoprolol succinate 100mg by mouth twice daily
- clopidogrel 75mg by mouth once daily
- rosuvastatin 20mg by mouth once daily
- aspirin 81mg by mouth once daily
- losartan 100mg by mouth once daily (hospital formulary)
- Humalog (insulin lispro) 20 units subcutaneously three times daily with meals
- Toujeo (insulin glargine) 24 units subcutaneously at bedtime (hospital formulary)
- metformin IR 1000mg by mouth twice daily
- sertraline 100mg by mouth once daily (hospital formulary)

COMMUNITY PHARMACY TOC INTERVENTION

Perform a discharge medication reconciliation for the patient with the following considerations:

losartan vs. lisinopril

Toujeo vs. Lantus

sertraline vs. fluoxetine

Humalog vs. glyburide (or both?)

CARDIAC REHABILITATION CENTER, NEW CARDIOLOGIST

The patient will receive intensive cardiac rehabilitation for 7 days, during which time he will stay in a post-acute care setting (skilled nursing facility.) He will be seen by his new cardiologist at this time.

- Cardiologist changes metoprolol succinate to bisoprolol 10mg by mouth once daily
- Cardiologist discontinues losartan 100mg once daily for losartan/HCTZ 100/25mg by mouth once daily
- Rehabilitation center initiates exercise regimen with patient while at facility (30 minutes daily for 7 days.)

DISCHARGE FROM REHABILITATION TO HOME

Community pharmacy care opportunities:

- Medication reconciliation
- CMR
- Update med synchronization/automatic refill
- Coordination of Care Barriers
- Drug Therapy Problems
- Facilitate communication between cardiologist and primary care

OBJECTIVES

Identify

Identify specific transition deficits most in need of and appropriate for pharmacist intervention.



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Discuss

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