Implementation of Clinical Billing and Coding Curriculum

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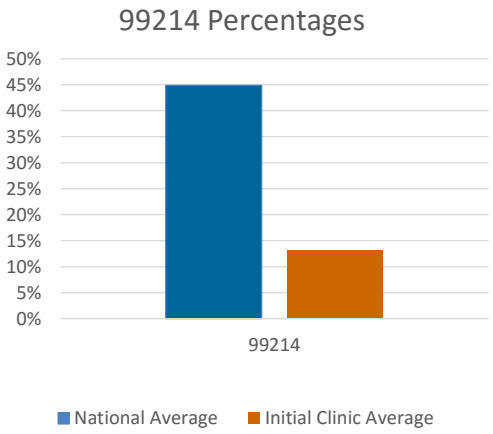
Problem

- May 2016- New Director of Clinical Operations began tracking billing and coding trends
- Coding percentages were collected and compared to the national average

Initial Findings



- CMS National Family Medicine average for 99214: 44.9%
- Baseline for TAMFMR from August 2014 - July 2016 for 99214: 11.2%

Why does it matter?

- CMS compliance (avoid an audit)
- Financial implications to Texas A&M Physicians
- Imperative for residents to learn accurate coding to apply in their future practice





Potential Causes of Under Coding

- Deficit in clinical coding knowledge among Resident and faculty physicians
- Physical inability of preceptor to evaluate patient with resident at the time of service

Solution

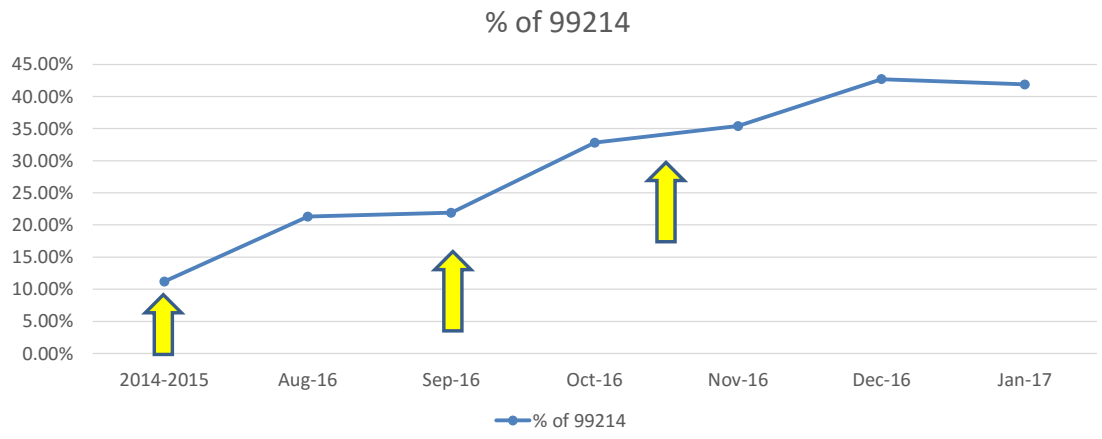
- Faculty development by using E&M University
- Resident didactic lectures
- Implementation of a clinical billing and coding curriculum
- Monthly billing performance feedback provided to faculty and residents

Coding Curriculum

Residents directed to review required E&M coding checklist with faculty assistance during clinic

- PGY1: all non-preventative visits
- PGY2 and 3: MDM forms on first 3 visits per half day

Impact of Solution



Financial Impact

Assuming same patient mix and number of patient visits, if we remain at 42% 99214 visits, we expect a net **increase** of **$334,000** in charges for fiscal year 2017

Long-term Compliance

- Accurate coding by all physicians in the practice, while not artificially padding numbers
- Monthly coding accuracy report provided to physicians for review
- Added to our quarterly peer review process

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STRONG MEDICINE FOR AMERICA

H.O.M.E.S

Hospital Opiods Maintenance of Efficacy and Safety

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DME/PD Mcalester Regional Health Care Center

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Reaction vs. Ruin

- Septic story
- Rate of addiction between 8-12% of those prescribed narcotics. [11]

Background:

- Can we safely prescribe less opiods without any impact to patient satisfaction?
- 74% of physicians state that they feel pressured to give narcotics to maintain HCAHPS [1]

Objective:

- Evaluate the impact of monitoring and non-punitive recommendations on patient safety and satisfaction.

Endpoints

- Patient satisfaction with pain control
  - As measures by HCAHPS
- Reduction in Opiate Related Adverse Drug Events
- Reduction in Narcan Use
- Reduction in Length of Stay
- Cost Efficacy

Demographics

- Level 3 trauma center with 166 approved beds. We are a public trust hospital in an area serving over 100,000. Impacting 17 counties in southeastern Oklahoma
- Icu, Medical, Step Down,SNF, Rehab, peds, ob/gyn
- Average daily census 47

Methods:

- October 2015 formed stewardship committee
- January 2016: Removal of IV morphine and ativan from hospitalist order set
  - Physicians are still able to order, but must be written seperately.
- January 2016: Tracking the amount prescribed for high potency narcotics (i.e. hydromorphone, meperidine)
  - fentanyl IV excluded as it is used only for sedation
- March 2016: CME event to review the updated CDC guidelines for Opiod use.
- July 2016: Informing physicians of how their prescribing practices compared to others
  - Quartely trend sheets placed in physician areas.
- July 2016:Daily pharmacy review of total Milligram Morphine Equivalents written with recommendations to those exceeding CDC recommendations.
  - 50MME leads to Double risk of adverse events
  - 100MME leads to Nine times greater risk of adverse events

What Does That Look Like?

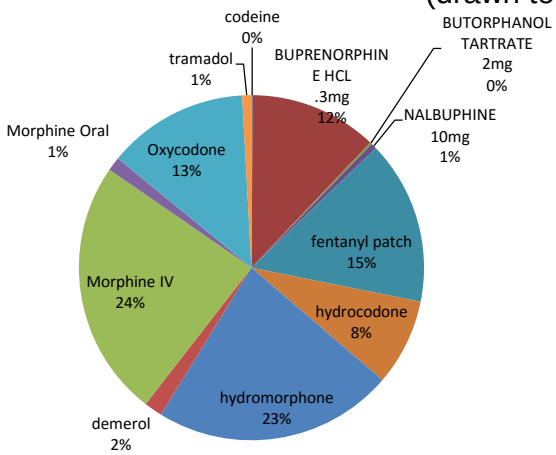
(50MME Doubles Risk)

Ultram 100mg PO q 4-6	Morphine 2.5mg IV q 4-6
Lortab 10 mg PO q 4-6	Morphine 5mg IV q 8
Percocet 5mg PO q 4	Morphine 10mg IV q 16
Percocet 10mg PO q 8	Dilaudid 1mg IV q 16
Morphine 10 mg PO q 4-6	Dilaudid 2mg IV ONCE daily
Dilaudid 0.5mg PO once	Fentanyl 50 mcg IV ONCE

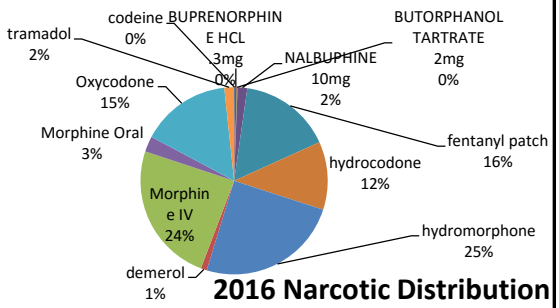
Yes, several of these are less than what you routinely write.
Risk vs Benefits (at double these doses it doubles your chance of having a problem)
At Twice these doses it is 9X greater risk!

Prescribing Habits

(drawn to scale)



2015 Narcotic Distribution

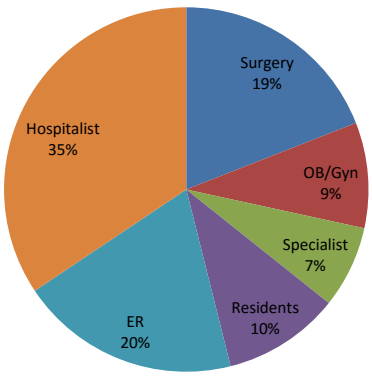


2016 Narcotic Distribution

Oral Vs IV

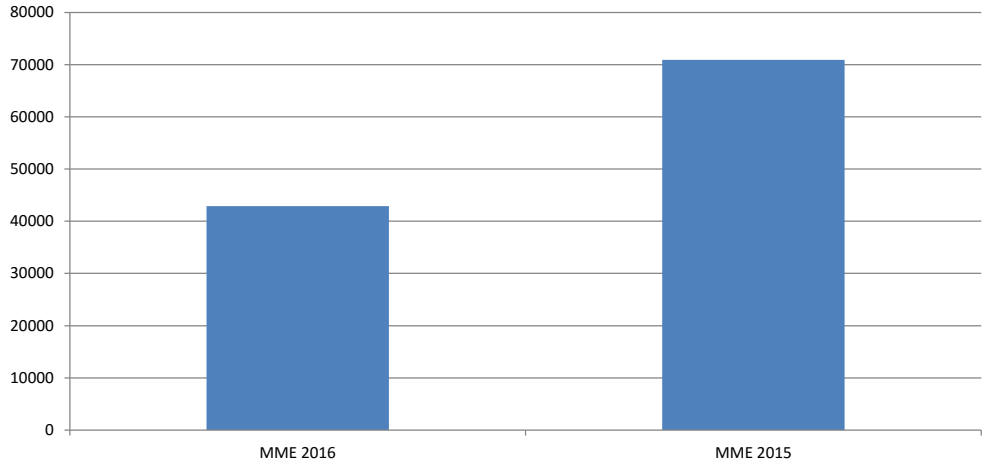
- The total decrease in Milligram Morphine Equivalent IV from 2015 to 2016 was 63%.
  - Not only were we writing less, we were writing lower doses.
- Oral pain medicine dispensed increased 3.15% 2015 vs 2016.
  - The Milligram Morphine equivalence change from oral was a decrease of 16%, this means more meds were administered but at a lower dose.

Narcotics Administered (Physician Area)



Total Reduction MME administered

(exculding IV fentanyl used for sedation)



What does that equal?

- 7 Norco 10 mg per patient per day in 2015
  - That includes newborns.
- 4 Norco 10 mg per day per patient in 2016
  - still includes newborns

Cost

- 87 minutes of pharmacist time per day, contacting physician exceeding reccommended dose and suggesting to convert from IV to oral
- This includes our concurrent antibiotic stewardship time.

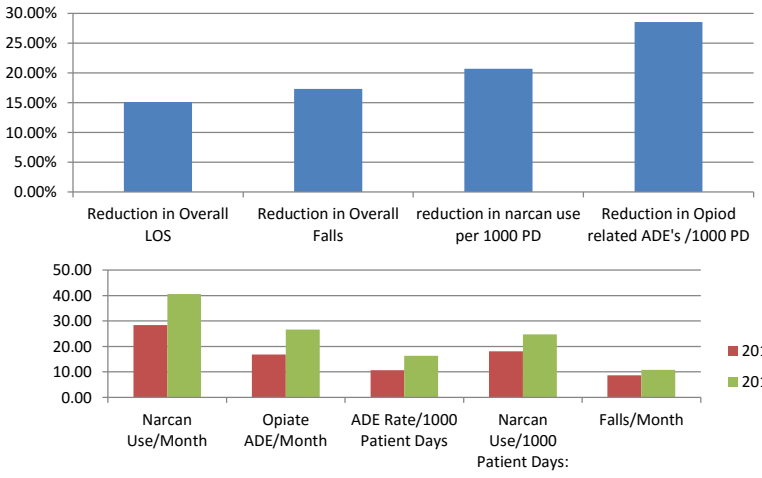
Physician Acceptance

- Physicians near universally were satisfied with the results.
- A secondary study is underway to evaluate physician prescribing patterns with awareness.
  - Spoiler: Those that prescribe the most pain meds don't realize and tend to over rationalize their habits.

Results

- HCAHPS increased 1.36% (p=0.025)
  - Interesting note, patients actually rated their pain higher, but felt it was better controlled.
- Los reduction decreased 15.09% (p=0.0023)
- Falls decreased 17.31%
- ADE per 1000 patient days 20.69%

Percent Reductions



Payoff

- Length of Stay Reduction: $1,580,000
- Drug Cost: $12,272.99
- Avoidable Loss due to ADE:$1,140,000
- Total: **$2,732,272**

References

- https://wire.ama-assn.org/delivering-care/patient-satisfaction-surveys-need-better-address-pain-management-fighting-opioid
- https://www.cms.gov/Newsroom/MediaReleaseDatabase/Press-releases/2016-Press-releases-items/2016-11-01.html
- https://www.ncbi.nlm.nih.gov/pubmed/17066115
- http://jamanetwork.com/journals/jamainternalmedicine/fullarticle/1108766?resultClick=3
- http://www.cdc.gov/mmwr/volumes/65/rr/rr6501e1.htm
- https://www.ncbi.nlm.nih.gov/pubmed/26913753
- Vizient Data
- HCAPHS score cards
- Catalyst report
- Stewardship committee data sets
- https://www.ncbi.nlm.nih.gov/pubmed/25785523

Effect of Non-visit Care on Resident Work Load

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Non-visit Care (NVC)

- Work unrelated to the patient visit
  - Patient phone calls, on-line communication
  - Test/consult results
  - Prescription refills
  - Forms
  - Notifications

Non-visit Care

- Family physicians in practice:
  - 23% of the work day
- Minimal data on how much time residents spend on NVC

Goal

- Develop an objective measure of the amount of time family medicine residents spend on NVC

METHODS

- Demographics
- Tracked NVC events on the EHR for 22 residents over 9 months
- Resident panel
- Institutional time study

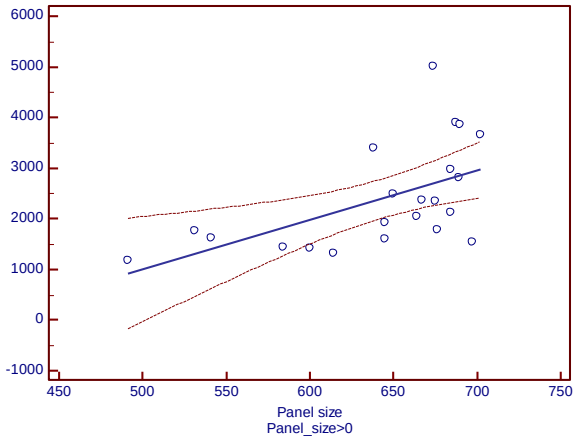
Six most common NVC categories performed by residents

Most Common NVC Categories	Total number of events	Minutes per event as measured by time study
Orders to Sign	15,824	1:00 (estimate)
Care Review (test results)	12,950	2:59
General Message (Patient on-line communication)	6,173	8:44
Miscellaneous	3,231	3:40
Emergency Department visit	2,334	1:39
Telephone Message	1,474	7:00

RESULTS

- 22/24 Family Medicine residents
- Mean Panel size- **642**
  - Range: 491 - 702
- Mean number of NVC events per resident
  - **2391**
  - Range: 1187 - 5010.

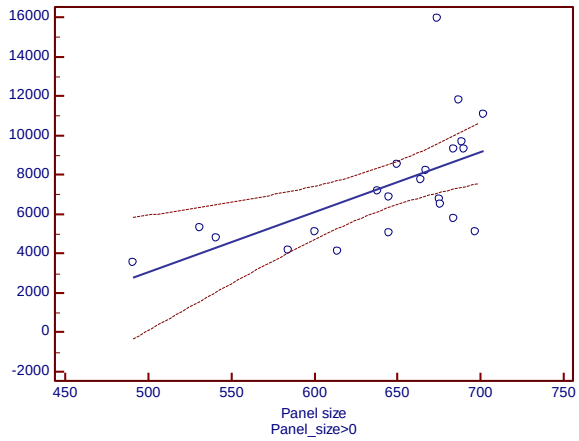
Number of Non-Visit Care events for residents, by panel size



RESULTS

- Mean of 7357.83 minutes on NVC duties in the 9 month time span, or 13.6 hours per month.
- 127.3 min of NVC time per 100 patients per month for each resident

Time Residents spent in Non-Visit Care, by panel size



DISCUSSION

- 127.3 min per 100 patients in their panel per month
- How do we keep residents within duty hour limitations?

DISCUSSION

- Strengths of study
  - Objective measurement
  - Extended time span
  - Measured all NVC performed by residents regardless of when task completed

DISCUSSION

- Limitations of study
  - Underestimation of time spent
    - Time study
    - Urgent tasks
    - Unlicensed residents
  - Did not control for # of patient visits, age & medical complexity, distance patients traveled

SUMMARY

- 127.3 min of NVC time per 100 empanelled patients per month for each resident
- Need to actively systems and curricula that promote duty hour compliance

Revolution in Resident Scheduling: A Mini-Block Model

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Program Director,
OU-Tulsa Dept. of Family & Community Medicine

with Frances Wen, PhD and Ronald Saizow, MD

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Introduction

- Where we were…
  - Everything else prioritized BUT clinic
  - Living in the “training gap”
  - Chaos in the ambulatory center
  - Poor patient continuity
  - Poor resident accountability

Introduction

- Where we wanted to be…
  - "Clinic First"
    - Complementary service/education missions
  - Continuity prioritized
  - Resident wellbeing enhanced
  - Rotations strengthened/de-fragmented

Gupta, Dube, Bodenheimer. The Road to Excellence in Primary Care Resident Teaching Clinics. Acad Med 2106;91(4):458-61.

How we began the journey…

- Rapid resident cycling: "2+2"

AY 2016-17:
PGY-1 – all
PGY-2/3 – IP only

	1	2	3	4	5	6	7	8	9	10	11	12
½ mo.	Peds	Peds	Peds	Surg	IP	IP	IP	OB	OB	OB	NBN	EM
½ mo.	AMB	AMB	AMB	AMB	AMB	AMB	AMB	AMB	AMB	AMB	AMB	AMB

Rosenblum M, et al. Rapid resident cycling: the 14-day mini-block. Acad Intern Med Insight 2009;7(4):10-11.

The AMB Mini-Block

	Monday	Tuesday	Wednesday	Thursday	Friday
AM	Continuity Clinic	Continuity Clinic	Continuity Clinic	Continuity Clinic	**Theme**
PM	Continuity Clinic	Academic Afternoon	Continuity Clinic	Continuity Clinic	**Practice Mgmt**

Themes: Q1-Professionalism/Communication
Q2-Leadership Development
Q3-Behavioral Health/Wellness
Q4-Team Dynamics

The Rotation Mini-Block

	Monday	Tuesday	Wednesday	Thursday	Friday
AM	Rotation	Rotation	Rotation	Rotation	Rotation
PM	Rotation	AA	Rotation	Rotation	Rotation

Objectives for the Innovation

- Eliminate phase-shifting
- Reduce clinic schedule variability
- Increase ambulatory time in clinic
- Simplify the scheduling matrix
- Potentiate stable patient-learner-faculty teams

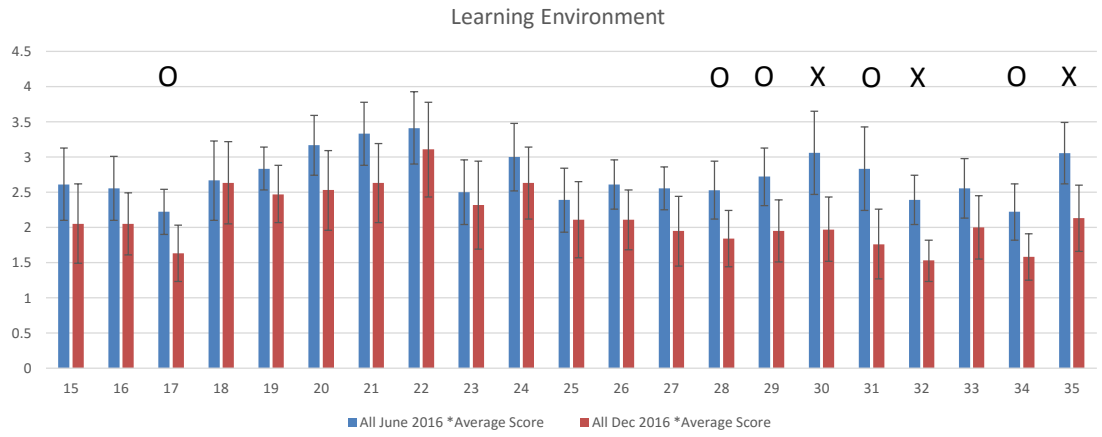
Hypothesized Impacts…

- Improve residents' perception of the clinical learning environment
- Improve continuity of care for patients
- Improve perception and observation of fluency in the ambulatory environment

Methods for Study/Analysis

- VA Learner's Perception Survey (all)
- Modified Nominal Group Technique (R1)
- Continuity
  - UPC: % visits patients seen by PCP
  - PHY: % visits residents see their patients

Results: VA LPS



Significant Improvement

- Ability to focus in clinic without interruption
- Ownership/personal responsibility for patient's care
- Overall satisfaction with the learning environment!
- Near-significant: autonomy, spectrum of patient problems, diversity of patients, balanced clinic/IP duties, relationship with patients

Hypothesis Testing

- Learning Environment as primary endpoint
  - Q35 = "Overall satisfaction with learning environment"
  - Composite = average of 20 items, excl. Q35
- Compared PGY-1 vs. PGY-2/3 classes
- Student's t-test, one-tailed

Overall Satisfaction with LE

Class	N	Mean	SD
PGY-1	7	1.57	0.54
PGY-2/3	30	2.82	0.97

$t(35)=-3.26, p<.001$

Composite Satisfaction with LE

Class	N	Mean	SD
PGY-1	7	1.61	0.49
PGY-2/3	30	2.61	0.58

$t(35)=-4.18, p<.0005$

Results-MNGT

Strengths	A	B	C	D	E	TOTAL
Quality of Life	5	5	5	3	5	23
Continuity of AMB Care	3	4	4	4	4	19
Competency in AMB Care	4	3	1	5	2	15
Focused Learning	2	2	0	2	1	7
Smaller Learning Chunks	0	0	3	0	3	6
Friday Sessions	1	1	2	1	0	5
Areas for Improvement	**A**	**B**	**C**	**D**	**E**	**TOTAL**
Limited Inpatient Experience	5	5	1	5	5	21
15 Straight Working Days	1	3	4	3	3	14
Senior Call/Post-Call	2	4	0	2	4	12
Low Diversity of Attendings	4	0	5	1	1	11
Limited OB Experience	0	1	3	4	2	10
Relation with Other Programs	3	0	2	0	0	5
Big Care Transitions/ Decreased IP Continuity	0	2	0	0	0	2

Results-Continuity

UPC	6/2016	12/2016
PGY-1	26.82%	49.87%
PGY-2	40.00%	58.03%

PHY	6/2016	12/2016
PGY-1	68.30%	58.60%
PGY-2	65.70%	48.24%

Initial Conclusions

- More satisfaction in the learning environment for residents overall

Survey item	Δ in value
Ability to focus during clinic without interruption	1.09
Ability to balance ward/IP duties on clinic days	1.07
Overall satisfaction with the learning environment	0.93
Diversity of patients	0.77
Spectrum of patient problems	0.69
Relationship with patients	0.64
Degree of autonomy	0.59

Initial Conclusions

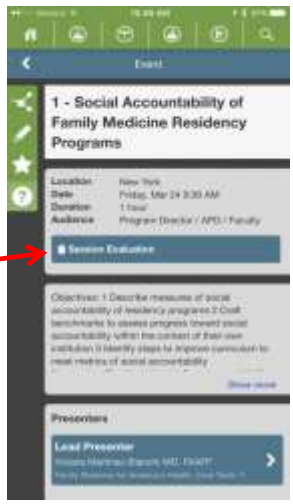
- PGY-1 class describes improved quality of life, continuity/competency in AMB care
- Improved patient-oriented continuity of care
- Need to closely monitor in-hospital competencies, allow diversification

Next Steps…

- AY 2017-18…
  - Scale the model to all residents!
- Patient-learner-faculty preceptor teams
  - Clear line of educational/clinical responsibility
- Weave in other longitudinal pieces…
  - Thinking population health

Please…

Complete the session evaluation.



Thank you.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