



The Digital Transformation of Scheduling: A New Approach

Lynn Miller RN, BSN, Director of Applications, MIS Department

Jessica Morrison RN, BSN, Clinical Systems Analyst, MIS Department

Doylestown Hospital

Today's **Speaker Lineup**



Lynn Miller RN, BSN

Director of Applications,
MIS Department,
Doylestown Hospital



Jessica Morrison RN, BSN

Clinical Systems Analyst,
MIS Department,
Doylestown Hospital



Doylestown Hospital

Organization Overview

The flagship of Doylestown Health and part of a clinically integrated system of inpatient and outpatient healthcare services.

- Nationally and regionally recognized for high quality and innovation
- Serving patients and families in the northern suburban communities of Philadelphia
- 271 beds, and a medical staff of 435+ physicians in 50+ specialties

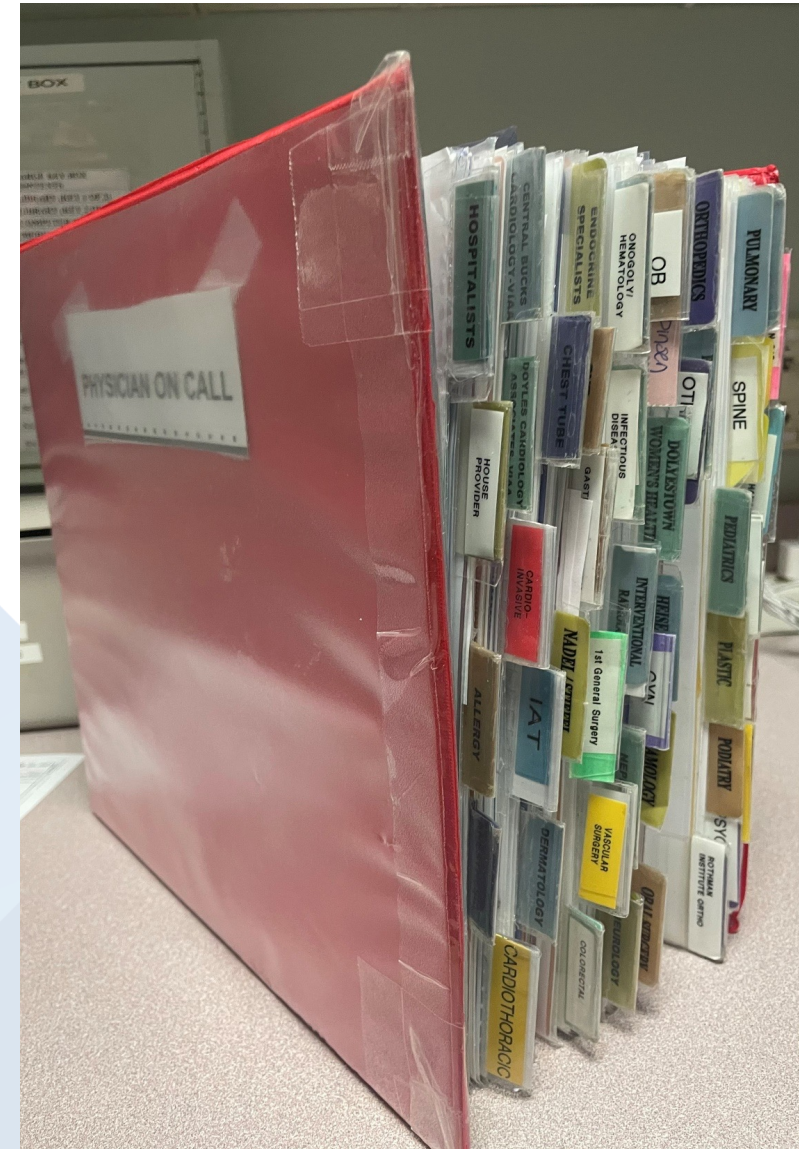


An Antiquated Way of Scheduling

The Challenges of Scheduling

Before a Digital Solution was Implemented

- Maintaining on-call schedules was very manual and arduous, wanted to replace spreadsheets
- Needed to increase access/awareness to who was on call for each discipline/practice
- Wanted to stop sending a faxed report of which hospitalist providers were on each day (along with their shifts)
 - More hospitalists rounding than identified in the on-call schedule



Initial Physician Schedule

[illegible]

Hospitalist On-Call Schedule

HOSPITALIST ON CALL SCHEDULE - FEBRUARY 2021

2021 revised 02/05/21

SUN	MON	TUE	WED	THU	FRI	SAT
31 MT - 12p-12a - \$1800	1 D S I R A M Rp 12- 9-10 9-12-12-12 ED X OV / MEP H KM - 3p - 11p VD / TS	2 D S I R A M Rp 8 12- 8- 10- 8-12-12 ED X OV / MEP H KM - 3p - 11p VD / TS	3 (S) D N I R A M Rp 12-12-12 8-10-10- 8 X-ED OV / MEP H KM - 3p - 11p -OFF ED	4 D S I R A M Rp 8-12- 12-12-8-10- 8 X-ED OV / MEP- off-N H (1350) KM - 3p - 11p -OFF VD	5 D S I R A M Rp 8- 8- 12-12-12-10-10 X-ED OV / MEP - off H KM - 3p - 11p ED / TS	6 M -7a-7p ED -12 H -7p-7a-ED -NIGHT ED - 12p - 12a T - 7a- 12p (750) D S I R A M Rp 10- 8- 8- 12X- 10- 8
7 Rp -7a-7p PP - 7p - 7a ED - 12p - 12a A - 12 cross cover T 12p-9p (1350) D S I R M 12 10 8 8 8	8 K C J Pm N L T 12-9-10- 9- 12-12- 12 ED X OV / MEP - off PP -KM - 3p - 11p TS - VD - 36 hrs PTO	9 K C J Pm N L T 8 -12 -8-10- 8- 12-12 ED X OV / MEP PP KM - 3p - 11p TS	10 K C J Pm N L T 12-12-12-8- 10-10- 8 X-ED OV / MEP PP KM - 3p - 11p ED	11 K C J Pm N L T 8-12-12-12- 8- 10- 8 X-ED OV / MEP PP KM - 3p - 11p ED	12 K C J Pm N L T 8- 8-12-12- 12-10-10 X- ED OV / MEP PP KM - 3p - 11p TS	13 L -7a-7p ED -12 PP - 7p-7a-ED-NIGHT MT - 12p - 12a K C J Pm N T 10- 8- 8- 12X- 10- 8
14 M -7a-7p (T) LS -7p-7a (PP-unpd) N -12 cross cover MT - 12p - 12a K C J Pm L 12 10 8 8 8	15 Rp D S I R A M 12- 9-10- 9- 12- 12-12 ED X OV / MEP H KM - 3p - 11p ED / TS /VD-11 PTO	16 Rp D S I R A M 8- 12- 8-10- 8-12-12 ED X OV / MEP H KM - 3p - 11p TS	17 Rp D S I R A M 12- 12-12-8- 10-10-8 X-ED OV / MEP H KM - 3p - 11p ED	18 Rp D S I R A M 8- 12-12-12- 8-10- 8 X-ED OV / MEP PP-7p-12a -H-12a7a KM - 3p - 11p ED-12 PTO / VD	19 Rp D S I R A M 8- 8-12-12-12-10-10 X- ED OV / MEP H KM - 3p - 11p VD	20 A -7a-7p ED-12 H -7p-7a-ED -NIGHT TS - 12p - 12a Rp D S I R M 10- 8- 8- 12X- 10- 8
21 M -7a-7p H -7p-7a TS - 12p - 12a R - 12 cross cover Rp D S I A 12 10 8 8 8	22 T K C J Pm N L 12- 9-10- 9-12- 12-12 ED X OV / MEP (1800)- LS (PP-unpd) KM - 3p - 11p ED / VD	23 T K C J Pm N L 8 -12- 8-10-8- 12- 12 ED X OV / MEP PP KM - 3p - 11p TS	24 T K C J Pm N L 12-12-12-8-10- 10-8 X-ED OV / MEP PP KM - 3p - 11p TS	25 T K C J Pm N L 8-12-12-12-8- 10-8 X-ED OV / MEP PP KM - 3p - 11p ED	26 T K C J Pm N L 8- 8-12-12-12-10-10 X- ED OV / MEP PP KM - 3p - 11p ED / VD	27 N -7a-7p ED-12 PP - 7p-7-ED -NIGHT VD - 12p - 12a T K C J Pm L 10- 8- 8- 12X- 10- 8
28 L -7a-7p PP -7p-7a VD - 12p - 12a Pm- 12 cross cover T K C J N 12 10 8 8 8						



Printing, Writing, and Faxing

Automating manual processes

WEEKEND TIME	DATE	COVERAGE	PERSONNEL	REMARKS
10:30	ED CAR		LORENTZ (SA)	
10:30	CROSS-COVER FLOORS		MANKIE	
10:30	ROUNDS		J. PATZ	
10:30	ROUNDS		Reddy	
10:30	ROUNDS		KARP	
10:30			LORENTZ	
10:30			SILVER	
10:30			VINNIK	
10:30			POWELL	
10:30			R. PATZ	

	A	B	C	D	E	F	G	
1	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	
2	7A-7P ED	7A-7P ED	7A-7P ED	7A-7P ED	7A-7P ED	7A-7P ED	7A-7P ED	
3	7A-7P X	7A-7P X	7A-7P X	7A-7P X	7A-7P X	7A-7P X	7A-7P X	
4	7A-7P	7A-7P	7A-7P	7A-7P	7A-7P	7A-7P	7A-7P	
5	7A-3P	7A-7P	7A-3P	7A-3P	7A-3P	7A-3P	7A-3P	
6	7A-3P	7A-4P	7A-3P	7A-3P	7A-3P	7A-3P	7A-3P	
7	7A-3P	7A-4P	7A-3P	7A-4P	7A-3P	7A-4P	7A-3-P	
8	7A-5P	7A-4P	7A-4P	7A-4P	7A-4P	7A-4P	7A-5P	
9	12P- 12A NP/PA/MD	7A-4P	7A-4P	7A-5P	7A-4P	7A-5P	12P- 12A- NP/PA/MD	
10	7P-7A ED	7A-5P	7A-5p	7A-5P	7A-5p	7A-5P	7P-7A ED	
11		3P-11P	3P-11P	3P-11P	3P-11P	3P-11P		
12		7P-7A	7P-7A	7P-7A	7P-7A	7P-7A		
13								
14	Provider Schedules	Roles						
15	7A-7P ED	Hospitalist ED Call 7A-7P		HOSP:ED:7A				
16	7P-7A ED	Hospitalist ED Call 7P-7A		HOSP:ED:7P				
17	7A-7P X	Hospitalist Cross coverage/floor 3p-7p		HOSP:X:7A				
18	7A-7P	Hospitalist Shift 7a-7p.		HOSP:7A7P.				
19	7A-7P	Hospitalist Shift 7a-7p..		HOSP:7A7P..				
20	7A-3P	Hospitalist Shift 7a-3p.		HOSP:7A3P.				
21	7A-3P	Hospitalist Shift 7a-3p..		HOSP:7A3P..				
22	7A-3P	Hospitalist Shift 7a-3p...		HOSP:7A3P...				
23	7A-4P	Hospitalist Shift 7a-4p.		HOSP:7A4P.				
24	7A-4P	Hospitalist Shift 7a-4p..		HOSP:7A4P..				
25	7A-4P	Hospitalist Shift 7a-4p...		HOSP:7A4P...				
26	7A-4P	Hospitalist Shift 7a-4p....		HOSP:7A4P....				
27	7A-5P	Hospitalist Shift 7a-5p.		HOSP:7A5P.				
28	7A-5P	Hospitalist Shift 7a-5p..		HOSP:7A5P..				
29	3P-11P	Hospitalist Shift 3P-11P		HOSP:3P				
30								
31								



Modernizing the Scheduling Process

Solving the Challenges

Using TigerFlow and TigerSchedule

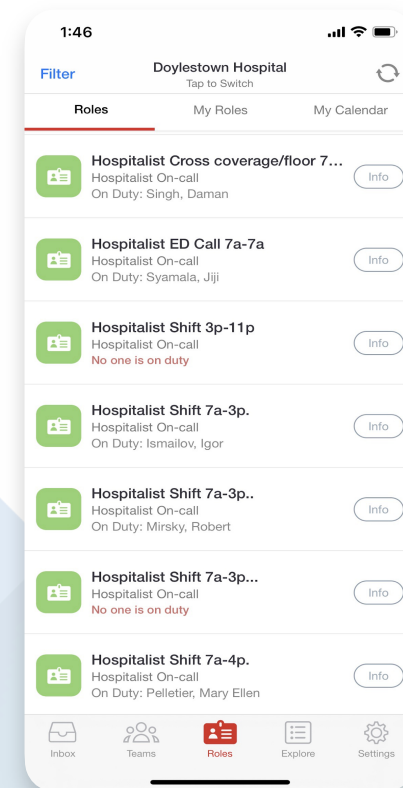
- Roles needed with one role per position on the on-call schedule
 - Each practice/discipline would have one 24-hour role with multiple jobs/shifts supporting it
 - Exception: ED and hospitalist groups. Overlapping shifts and multiple people on call each day requires more than one role for the discipline/practice
- Connected care team involved:
 - MIS Applications director and analysts
 - Switchboard operators
 - Schedulers for each practice
 - Physicians' input



An Agile Implementation

Started with the Roles Feature

- Unique roll out, started first with non provider roles
 - Pharmacy, hospitalist department (manually opting in/out), then pediatrics
- Roles assisted with TigerConnect top of mind recall
 - No one had to write papers anymore, just login to see their roles
 - Got people used to logging into the app to check their roles prior to full roll out
- Then implemented the scheduling piece
 - Gave two weeks notice that the paper processes were going away

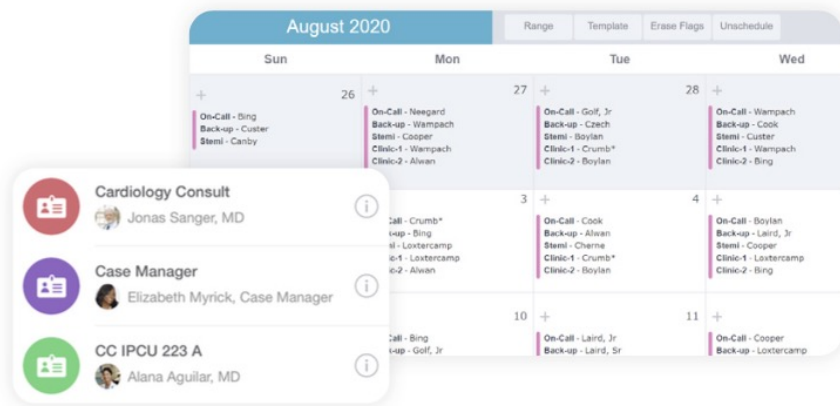


The Digital Transformation

Results, Outcomes, and Lessons Learned



The Positive Impact Of Modernizing On-Call Schedules



- On call schedules are more accessible via roles and link to daily roster
 - Providers can save to their own devices
 - Reduced calls to switchboard to determine who is on-call
- Practice schedulers are involved in keeping schedule up to date in real time
- Providers have more autonomy to quickly change the on-call coverage without having to contact switchboard if using opt in/out function
- Operators no longer need to manually build and update daily schedule
 - Reduced calls/emails/faxes to switchboard to update current and future schedules



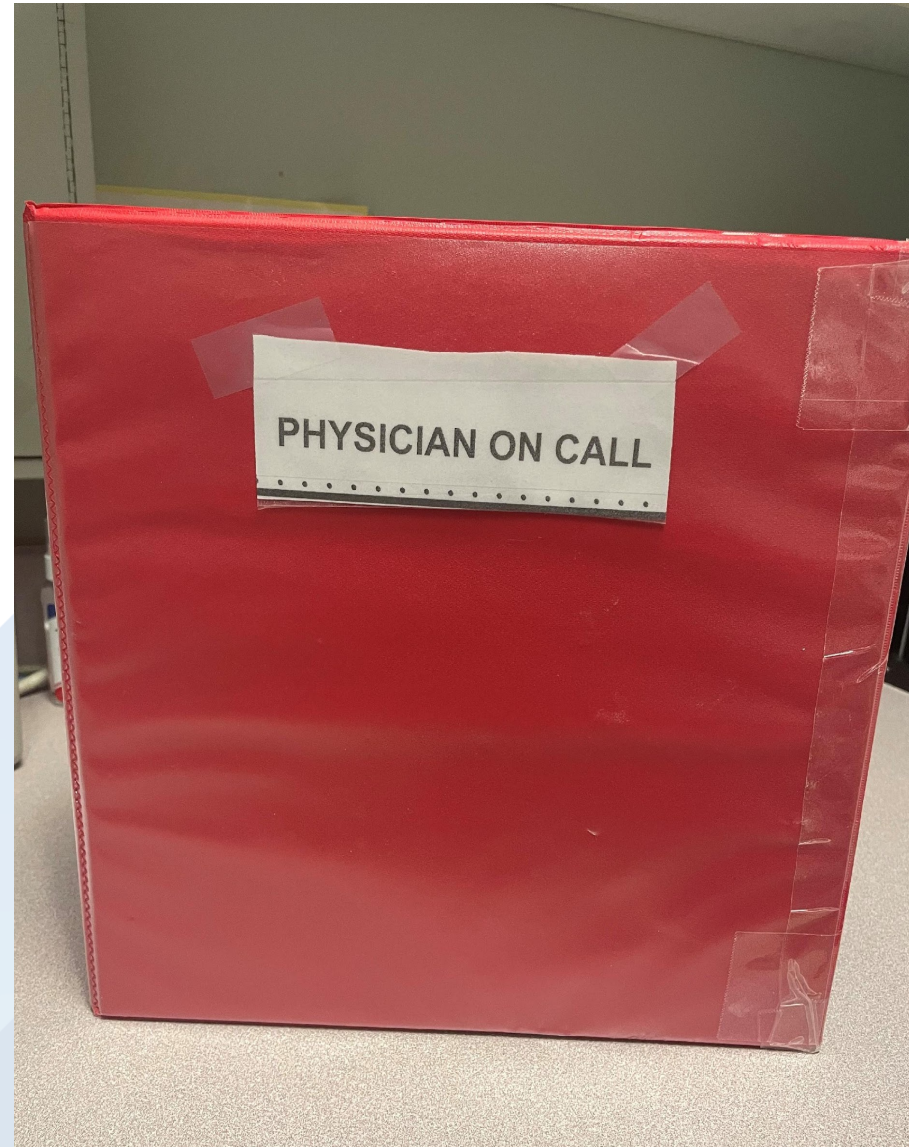
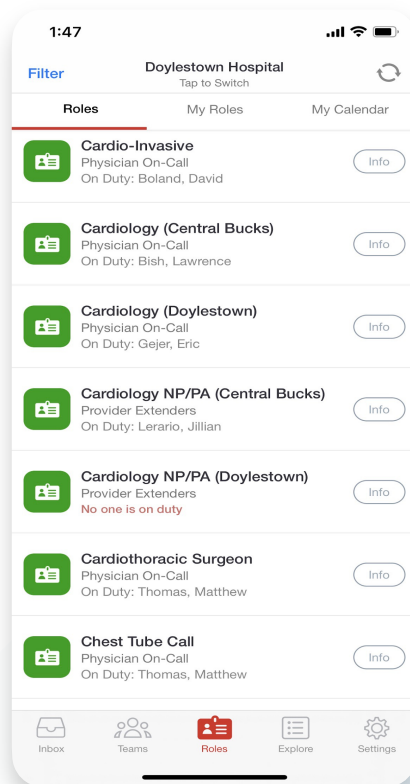
Lessons Learned

- Provider confusion in the first few days regarding messages passing with the role from inbox to inbox.
 - Reduce # of days role messages stay in the inbox (30 days -> 1 day).
 - Explain in advance the difference in the dot that applies to a tag vs. a new message dot with a number
 - Reinforce from the beginning the importance of READ for the message status
- Pilot testing with a small controlled group (pediatrics) as test pilot, followed by largest group (Hospitalists). Then took all of the practices live.
 - Agile implementation worked well and helped to answer questions before it reached all the groups.
- Require practices as much as possible to follow at 7am-7am on call rotation especially when it comes to multiple practices staffing one on call position (example gyn covered by 3 practices)



Conclusion

Ultimate Goal: Roles and Schedule





Q&A

