

Room Utilization in Lightning Bolt

Boston Children's Hospital | PerfectServe

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Speaker



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Started 2017

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Boston Children's Hospital

Division of Adolescent and Young Adult Medicine

Introduction

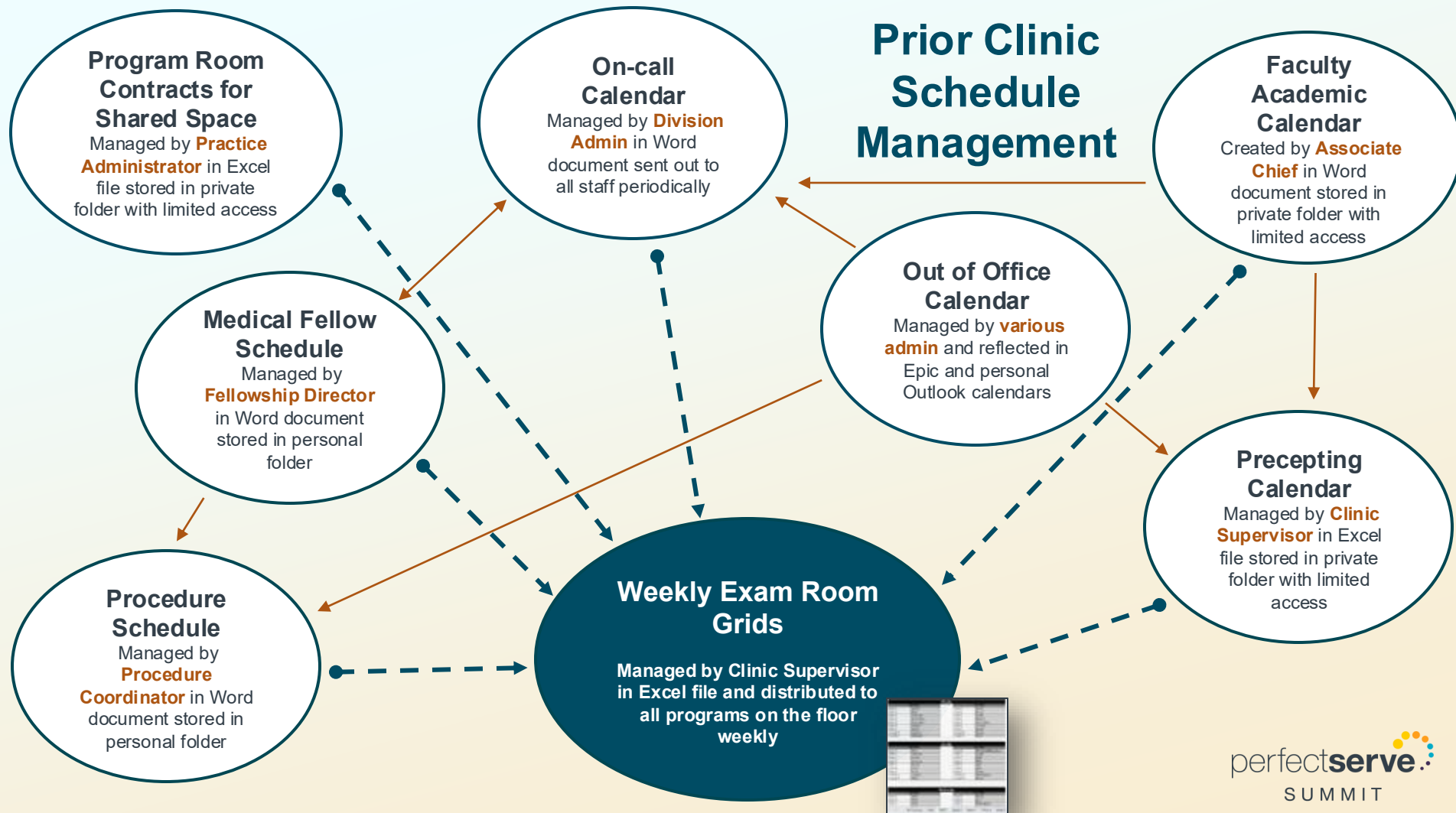


- Lightning Bolt user since 2018
- Full adoption in 2025
- Department of Pediatrics
 - 19 specialty outpatient programs
 - 1000+ providers
 - 4 Boston locations
 - 6 Satellite locations

Agenda

- Project Goals
- Project Scope & Demo
- Value to Boston Children's
- Lessons Learned

Prior Clinic Schedule Management



Prior Room Scheduling Method

1. Lack of visibility:

- Shared spaces unable to see available space outside of home departments

2. Challenging to schedule ad hoc visits

- Difficult for providers to add ad hoc visits; crucial as some clinics move away from annual session commitments to annual completed encounter targets.

3. Cumbersome room request process

- Convolutd room requesting processes in shared spaces
- Required multiple email touchpoints between room stewards and providers

Monday				Monday AM:	Rooms:
AM Clinic			PM Clinic	OPEN	0
Exam 1	Marvel		Exam 1	Boone	
Exam 2	Michl		Exam 2	Boone	9
Exam 3	O'Donnell		Exam 3	Rodan	
Exam 4	Omorodion		Exam 4	Marvel	
Exam 5	Omorodion		Exam 5	Omorodion	
Exam 6	Gottlieb		Exam 6	Gottlieb	
Exam 7	Waxler		Exam 7	Waxler	
Consult 1	Collamer		Consult 1	Chung	
Consult 2	Hollander		Consult 2	OPEN	2
Tuesday				Tuesday AM:	Rooms:
AM Clinic			PM Clinic	OPEN	0
Exam 1	Michl		Exam 1	Mochida/Massingham	
Exam 2	Gilmartin		Exam 2	Rodan	9
Exam 3	Brucker		Exam 3	Miller	
Exam 4	Sacharow		Exam 4	Miller	
Exam 5	Murray		Exam 5	Lyon	
Exam 6	Kritzer		Exam 6	Lyon	
Exam 7	Peters		Exam 7	Peters	
Consult 1	Collamer		Consult 1	Massingham	
Consult 2	OPEN		Consult 2	Clarke	0
Wednesday				Wednesday AM:	Rooms:
AM Clinic			PM Clinic	OPEN	7
Exam 1	OPEN		Exam 1	Bhatia	
Exam 2	OPEN		Exam 2	Cox	2
Exam 3	OPEN		Exam 3	Massingham	
Exam 4	OPEN		Exam 4	Massingham	0

Project Goals

	Goal	Purpose
1	Maximize visibility and utilization of clinic exam space.	<ul style="list-style-type: none">• Improve room utilization and visibility across the enterprise• Reduce appointment access barriers• Improve provider experience• Increase volume
2	Onboard and optimize all schedules into Lightning Bolt.	<ul style="list-style-type: none">• Centralize schedules, maximizing visibility• Capture clinic operational nuances• Provide accurate session tracking• Act as source of truth for Epic template management• Standardize structure for out of office workflows
3	Encourage end user adoption of Lightning Bolt.	<ul style="list-style-type: none">• Improve operational efficiency by building single source of truth• Improve provider autonomy of their own schedules
4	Expand existing utilization of Lightning Bolt integrations: <ul style="list-style-type: none">○ WebEx (Spok) - phase 1○ Epic Cadence - phase 1○ Outlook - phase 2○ UKG Dimensions - phase 2	<ul style="list-style-type: none">• Eliminate duplicative data entry, reduce potential for human error• Support opening Cadence templates at least 1 year in advance• Ease schedule visibility for providers• Integrate payroll system to simplify time-off request workflow

Value to Boston Children's

Improved Resource Management

- ✓ Accurate session counts to ensure clinical commitments are met.
- ✓ Trend identification to maximize utilization of rooms across the Department of Pediatrics.

Streamlined Workflows

- ✓ Single source of truth for call, clinic, rooms, and time off improves operational workflows.
- ✓ Integrations with Spok, Cadence, and Outlook drive efficiency and reduce errors.

Project Scope

3 phases | Jan 7 – July 1, 2025

Onboard & Optimize All Divisions

1015 providers

**19 divisions with 7 new to
Lightning Bolt**

- Addiction Medicine
- Dermatology
- Developmental Medicine
- Endocrine
- Hematology
- Nephrology
- PEHC

Room Configuration

181 Boston exam rooms

Data collection and
configuration of rooms

Identification and training of
room stewards

Process and job aid creation

Reporting & Integrations

Reports:

- Clinical Commitment variance
- Session counts
- Available/unassigned rooms

Integrations:



- Single Sign On
- Cadence
- Spok
- Outlook

Walkthrough



Schedule Views

- Room Assignments with Personnel
- Full Schedule with Rooms
- Unassigned/Available Rooms
- Room Reservations View






Room Assignments with Personnel

<div>  08/25/25 - 08/31/25 < > DOP - 2BP-07  FILTER PERSONNEL FILTER ASSIGNMENTS SAVED FILTERS </div>					
ASSIGNMENT	Mo 08/25	Tu 08/26	We 08/27	Th 08/28	Fr 08/29
2BP7 EX01 AM	Genetics (Available)	Michl, Emma	Genetics (Available)	Vu, Victeria	Brucker, William
2BP7 EX02 AM	Marvel, Marissa	Kritzer, Amy	Genetics (Available)	Murray, Brittany	Peters, Melinda
2BP7 EX03 AM	Bodamer, Olaf	Brucker, William	Genetics (Available)	NBS Add-Ons	Picker, Jonathan
2BP7 EX04 AM	Michl, Emma	Goodlet, Benjamin	Reagan, Caitlin	Goodlet, Benjamin	Picker, Jonathan
2BP7 EX05 AM	Genetics (Available)	Sacharow, Stephanie	Reagan, Caitlin	Michl, Emma	Picker, Jonathan
2BP7 EX06 AM	Genetics (Available)	NBS Add-Ons	Angevine, Mary	Vu, Victeria	Lyon-Feeney, Helen
2BP7 EX07 AM	Genetics (Available)	Peters, Melinda	Angevine, Mary	McLellan, Ashley	Lyon-Feeney, Helen
2BP7 EX08 AM	Dermatology (Available)	Fried, Ari	Tan, Jennifer	Damji, Yasin	Reagan, Caitlin
2BP7 EX09 AM	Hettenhaus, Katherine	Fried, Ari	Tan, Jennifer	McLellan, Ashley	Reagan, Caitlin
2BP7 EX10 AM	Hettenhaus, Katherine	Rudders, Susan	Rudders, Susan	Fried, Ari	Banzon, Tina
2BP7 EX11 AM	Treffeisen, Elsa	Rudders, Susan	Rudders, Susan	Fried, Ari	Banzon, Tina
2BP7 EX12 AM	Treffeisen, Elsa	Hoytema, Jessica	Voorhees, Sara	Hoytema, Jessica	Chamseddine, Sarah
2BP7 EX14 AM	Food Challenge	Hoytema, Jessica	Food Challenge	Hoytema, Jessica	Food Challenge
2BP7 EX15 AM	Food Challenge	OIT	Food Challenge	OIT	Food Challenge
2BP7 EX16 AM	Food Challenge	OIT	Food Challenge	OIT	Food Challenge
2BP7 EX17 AM	Food Challenge	OIT	Food Challenge	OIT	Food Challenge
2BP7 LASER AM	Laser	Laser	Laser	Laser	Laser
2BP7 EX19 AM	Dermatology (Available)	Dermatology (Available)	Huang, Jennifer Tan, Jennifer	Damji, Yasin	Chamseddine, Sarah

Full Schedule with Rooms

	SEPTEMBER 2025	◀ ▶	DOP - DERMATOLOGY: FULL SCHEDULE (WITH ROOMS)			FILTER PERSONNEL	FILTER ASSIGNMENTS	SAVED FILTERS
PERSONNEL	Su 08/31	Mo 09/01	Tu 09/02	We 09/03	Th 09/04	Fr 09/05	Sa 09/06	
Dermatology (Available)			FEG06 EX01 PM FEG06 EX03 PM		FEG06 EX01 PM	2BP7 EX19 AM 2BP7 EX20 AM 2BP7 EX21 AM 2BP7 EX19 PM 2BP7 EX20 PM 2BP7 EX21 PM		
Dermatology (Fellow)					FEG06 EX01 AM FEG06 EX03 AM FEG06 EX07 AM FEG06 EX08 AM			
Dermatology (Resident)					FEG06 EX05 AM FEG06 EX09 AM			
Dermatology - Attendings								
Corey, Kristen	Attending Call Day Attending Call Night			Vacation (Full Day)	Vacation (Full Day)			
Damji, Yasin				BP Derm Clinic AM	BP Derm Clinic AM	Bos Derm Clinic AM		
				2BP7 EX08 AM	2BP7 EX08 AM	Attending Call Day		
				2BP7 EX19 AM	2BP7 EX19 AM	FEG06 EX09 AM		
				BP Derm Clinic PM	BP Derm Clinic PM	FEG06 EX11 AM		
				2BP7 EX08 PM	2BP7 EX08 PM	Bos Derm Clinic PM		
2BP7 EX19 PM	2BP7 EX09 PM	FEG06 EX05 PM	FEG06 EX09 PM					
Delano, Sophia			Lex Derm Clinic AM Lex Derm Clinic PM					
Gellis, Stephen			Bos Derm Clinic AM	Lex Derm Clinic AM	Lex Derm Clinic AM	Lex Derm Clinic AM		
			FEG06 EX05 AM FEG06 EX09 AM					
Grenier, Pierre-Olivier			PB Derm Clinic AM		BP Laser AM	Bos Derm Clinic AM		
			PB Derm Clinic PM		2BP7 EX20 AM	FEG06 EX01 AM		
					2BP7 EX21 AM 2BP7 LASER AM	FEG06 EX03 AM VAC Clinic PM		

Unassigned / Available Rooms

	09/29/25 - 10/05/25	< >	DOP - * UNASSIGNED/AVAILABLE ROOMS		FILTER PERSONNEL	140 ASSIGNMENTS	SAVED FILTERS	<div>+ Add Shift</div>			
PERSONNEL	Mo 09/29	Tu 09/30	We 10/01	Th 10/02	Fr 10/03						
TALLIES											
BOSTON AM	-	-	-	-	-						
FEG 05 AM ROOMS (Total Unassigned/Avail)	1	-	2	5	1						
FEG 06 AM ROOMS (Total Unassigned/Avail)	-	-	-	-	1						
FEG 08 AM ROOMS (Total Unassigned/Avail)	-	-	-	-	-						
FEG 10 AM ROOMS (Total Unassigned/Avail)	-	-	-	-	-						
BOSTON PM	-	-	-	-	-						
FEG 05 PM ROOMS (Total Unassigned/Avail)	-	1	5	6	5						
FEG 06 PM ROOMS (Total Unassigned/Avail)	2	-	1	1	-						
FEG 08 PM ROOMS (Total Unassigned/Avail)	-	-	-	-	-						
FEG 10 PM ROOMS (Total Unassigned/Avail)	-	-	-	-	-						
Dermatology (Available)			FEG06 EX11 PM								
GI (Unassigned)		FEG05 EX02 PM	FEG05 EX14 AM	FEG05 EX03 AM	FEG05 EX01 PM						
		FEG05 EX18 PM	FEG05 EX20 AM	FEG05 EX13 AM	FEG05 EX05 PM						
			FEG05 EX08 PM	FEG05 EX14 AM	FEG05 EX06 PM						
				FEG05 EX15 AM							
			FEG05 EX20 AM								
			FEG05 EX02 PM								
			FEG05 EX03 PM								
			FEG05 EX12 PM								
Hematology (Available)	FEG06 EX11 PM										
Hematology (Unassigned)	FEG06 EX17 PM			FEG06 EX11 PM							
Renal (Unassigned)	FEG05 EX14 AM		FEG05 EX09 PM	FEG05 EX13 PM	FEG05 EX19 AM						
			FEG05 EX10 PM	FEG05 EX14 PM	FEG05 EX19 PM						
			FEG05 EX11 PM	FEG05 EX15 PM	FEG05 EX20 PM						
			FEG05 EX12 PM								
Rheumatology (Available)					FEG06 EX04 AM						

Rooms Reservation View

SEPTEMBER 26, 2025

ROOM RESERVATIONS (AVAILABLE ROOMS)

Q

(38 RESULTS)

DATE	LOCATION(S)	ASSIGNMENT	EMAIL
NOW 8:38 AM EDT			
September 26, 2025	Brookline Place	2BP7 EX03 AM	2BP07RoomStewards-dl@childrens.harvard.edu
September 26, 2025	Brookline Place	2BP7 EX04 AM	2BP07RoomStewards-dl@childrens.harvard.edu
September 26, 2025	Brookline Place	2BP7 EX05 AM	2BP07RoomStewards-dl@childrens.harvard.edu
September 26, 2025	Brookline Place	2BP7 EX07 AM	2BP07RoomStewards-dl@childrens.harvard.edu
September 26, 2025	Brookline Place	2BP7 EX19 AM	2BP07RoomStewards-dl@childrens.harvard.edu, FEG06RoomStewards-dl@childrens.harvard.edu
September 26, 2025	Brookline Place	2BP7 EX21 AM	2BP07RoomStewards-dl@childrens.harvard.edu, FEG06RoomStewards-dl@childrens.harvard.edu
September 26, 2025	Brookline Place	2BP7 EX20 AM	2BP07RoomStewards-dl@childrens.harvard.edu, FEG06RoomStewards-dl@childrens.harvard.edu
September 26, 2025	333	333-02 EX02 AM	333L002RoomStewards-dl@childrens.harvard.edu
September 26, 2025	333	333-02 EX07 AM	333L002RoomStewards-dl@childrens.harvard.edu
September 26, 2025	333	333-02 EX10 AM	333L002RoomStewards-dl@childrens.harvard.edu
September 26, 2025	333	333-05 EX04 AM	333L005RoomStewards-dl@childrens.harvard.edu
September 26, 2025	Fegan	FEG06 EX04 AM	FEG06RoomStewards-dl@childrens.harvard.edu
September 26, 2025	Fegan	FEG06 EX07 AM	2BP07RoomStewards-dl@childrens.harvard.edu, FEG06RoomStewards-dl@childrens.harvard.edu
September 26, 2025	Fegan	FEG10 EX10 AM	FEG08RoomStewards-dl@childrens.harvard.edu, FEG10RoomStewards-dl@childrens.harvard.edu
September 26, 2025	Fegan	FEG10 EX11 AM	FEG08RoomStewards-dl@childrens.harvard.edu, FEG10RoomStewards-dl@childrens.harvard.edu
September 26, 2025	Fegan	FEG10 EX12 AM	FEG08RoomStewards-dl@childrens.harvard.edu, FEG10RoomStewards-dl@childrens.harvard.edu

SCHEDULED

2BP7 EX20 AM

FRI, SEPTEMBER 26, 2025
8:00 AM - 12:00 PM

Dermatology (Available)

Email — 2BP07RoomStewards-dl@childrens.harvard.edu, FEG06RoomStewards-dl@childrens.harvard.edu

Details

Department — BCH Rooms
Template — 2BP-07
Location — Brookline Place
Originally Scheduled — N/A

History [view 2 entries](#)

Last modified — Thu, Aug 7, 2025 1:58 PM
Last modified by — Pagnozzi, Stephanie

REMOVE

REPLACE

SPLIT SHIFT

MODIFY DETAILS

Reporting

- Room Utilization
- Session Tracking
- Provider Annual Session Variance
 - Admin and End User reports

Room Utilization Report




*BCH EXAM ROOM UTILIZATION REPORT

08/13/2025 - 08/13/2025

	Adolesc... (Available)	Dermato... (Available)	Develop... Medicine (Unassig...	Genetics (Available)	GI (Unassig...	Hematol... (Available)	Pulmon... (Unassig...	Renal (Unassig...	Total
2BP-04 AM EXAM ROOMS			10						10
2BP-04 PM EXAM ROOMS			12						12
2BP-07 AM EXAM ROOMS				7					7
2BP-07 PM EXAM ROOMS				2					2
333-05 AM EXAM ROOMS	3								3
333-05 PM EXAM ROOMS	1								1
FEG 05 AM EXAM ROOMS								2	2
FEG 05 PM EXAM ROOMS					1			4	5
FEG 06 AM EXAM ROOMS						1			1
FEG 06 PM EXAM ROOMS		3							3
FEG 08 PM EXAM ROOMS							2		2
FEG 10 AM EXAM ROOMS							1		1
Total	4	3	22	9	1	1	3	6	49

Session Tracking

 DOP - GENETICS: SESSION COUNTS		08/01/2025 - 08/31/2025								
	Genetics Bos Clinic AM	Genetics Bos Clinic PM	Genetics Lex Clinic AM	Genetics Lex Clinic PM	Genetics Remote AM	Genetics Remote PM	Genetics Wal Clinic AM	Genetics Wal Clinic PM	Genetics Wey Clinic AM	Genetics Wey Clinic PM
Abu-El-Hajja, Aya					7		2			
Bhatia, Neha		3				3				
Bodamer, Olaf	1	1			1	1				
Boone, Philip		1			1					
Brucker, William	9	5			2					
Choi, William		1								
Chopra, Maya		3								
Chung, Wendy	2	2								
Cox, Gerald		2								
Goodlet, Benjamin	7									
Holtz, Alexander							2			
Horlbeck, Max	2									
Irons, Mira		4				4				

Session Variance – Admin

DOP - ADOLESCENTS: AY26 SESSION VARIANCE REPORT			
(Sample report- provider name blurred for confidentiality)	AY26 Total Required Sessions	AY26 Total Comp. + Sched. Sessions	AY26 Total Variance
	154	148.25	-5.75
	182	193.78	11.78
	220	212	-8
	139	158.56	19.56
	124.5	125.88	1.38
	135	142.69	7.69
	198	167.69	-30.31
	230	233.25	3.25
	58	59.63	1.63
	164	170.75	6.75
	287	267.75	14.75

REQUIRED SESSIONS


Provider annual session commitments

COMPLETED & SCHEDULED SESSIONS

Data pulled directly from Lightning Bolt schedules

Session Variance – End User

Session variance report with data limited to the logged in user

DOP - ADOLESCENTS: PHYSICIAN ANNUAL SESSION VARIANCE REPORT			
	AY26 Total Required Sessions	AY26 Total Comp. + Sched. Sessions	AY26 Total Variance
	154	148.25	-5.75

*Provider name blurred for confidentiality.

Outcomes

Improved Available Room Reallocation

- Captures provider out-of-office dates.
- Identifies solutions for restricted room capacity due to extenuating circumstances such as construction.
- Enables providers to identify exam rooms to accommodate urgent patient visits.

Reduced Scheduling Errors

- Single source of truth for admin management and provider access.
- Elimination of duplicate entry of the on-call schedule in WebEx/Spok.
- Presents opportunity for departments to improve workflows around Epic template creation and management.

Improved Accuracy

- Session tracking and variance prediction made available to leadership for the first time.
- Allows for the opportunity to allocate rent on shared floors appropriately.

One Source for All Clinic Schedules

Managed by Practice

Admin in Word

Management

Created by

ASSIGN.	Mo 09/29	Tu 09/30	We 10/01	Th 10/02	Fr 10/03
BOSTON AM					
Precept Bos AM	O'Brien, Rebecca	Borus, Joshua	Fitzgerald, Shannon	Divasta, Amy Pitts, Sarah	Hassan, Areej
Primary Care AM					Woodfield, Michelle
Onsite Boston AM	Breitling, Stefan	Brooks, Traci Fitzgerald, Susan	Breitling, Stefan Jhe, Grace		Fitzgerald, Susan
Virtual Boston AM	Boonchuiier, Lauane	Boonchuiier, Lauane Cullity, Lauren	White, Leah	Jhe, Grace	Freizinger, Melissa White, Leah Peters, Darcy
BOSTON PM					
Precept Bos PM	Borus, Joshua	Brooks, Traci	Murray, Pamela	Brooks, Traci	Hassan, Areej
Primary Care PM					Burley, Cassie Melendez Garcia, Carlos
LARC Precept PM			Fitzgerald, Shannon		
IUD PM			Burley, Cassie		
Nexplanon PM					
Onsite Boston PM	Breitling, Stefan Brooks, Traci Jhe, Grace Fitzgerald, Susan	Breitling, Stefan Borus, Joshua Hassan, Areej O'Brien, Rebecca Fitzgerald, Susan	Forman, Sara	Shrier, Lydia Fitzgerald, Susan	Borus, Joshua Fitzgerald, Susan
Virtual Boston PM	Tsappis, Michael Boonchuiier, Lauane	Tsappis, Michael Boonchuiier, Lauane Cullity, Lauren	Jhe, Grace White, Leah	Freizinger, Melissa Jhe, Grace Tsappis, Michael	Freizinger, Melissa White, Leah Peters, Darcy
ON CALL					
Oncall Attending	Richmond, Tracy	Richmond, Tracy	Richmond, Tracy	Richmond, Tracy	Divasta, Amy Richmond, Tracy
Oncall Fellow	Burley, Cassie	Burley, Cassie	Burley, Cassie	Burley, Cassie Nagle, Shea	Nagle, Shea
OUT OF OFFICE					
Vacation			Awnetwant Esperon, Ester	Forman, Sara O'Brien, Rebecca Awnetwant Esperon, Ester	Fitzgerald, Shannon O'Brien, Rebecca Cullity, Lauren

weekly

Room Scheduling Today

Monday				
AM Clinic			PM Clinic	
Exam 1	Marvel		Exam 1	Boone
Exam 2	Michl		Exam 2	Boone
Exam 3	O'Donnell		Exam 3	Rodan
Exam 4	Omorodion		Exam 4	Marvel
Exam 5	Omorodion		Exam 5	Omorodion
Exam 6	Gottlieb		Exam 6	Gottlieb
Exam 7	Waxler		Exam 7	Waxler
Consult 1	Collamer		Consult 1	Chung
Consult 2	Hollander		Consult 2	OPEN
Tuesday				
AM Clinic			PM Clinic	
Exam 1	Michl		Exam 1	Mochida/Massingham
Exam 2	Gilmartin		Exam 2	Rodan
Exam 3	Brucker		Exam 3	Miller
Exam 4	Sacharow		Exam 4	Miller
Exam 5	Murray		Exam 5	Lyon
Exam 6	Kritzer		Exam 6	Lyon
Exam 7	Peters		Exam 7	Peters
Consult 1	Collamer		Consult 1	Massingham
Consult 2	OPEN		Consult 2	Clarke
Wednesday				
AM Clinic			PM Clinic	
Exam 1	OPEN		Exam 1	Bhatia
Exam 2	OPEN		Exam 2	Cox
Exam 3	OPEN		Exam 3	Massingham
Exam 4	OPEN		Exam 4	Massingham

< > BP Summary Data **Week 1** Week 2 Week 3 Week 4 Week 5

ASSIGN.	Mo 09/29
333-05 EX01 AM	Adolescent (Available)
333-05 EX02 AM	Breitling, Stefan
333-05 EX03 AM	Isolation Room
333-05 EX04 AM	Adolescent (Available)
333-05 EX05 AM	Adolescent (Available)
333-05 EX06 AM	Kang, Augustine
333-05 EX07 AM	Ramirez, Guadalupe
333-05 EX08 AM	Adolescent (Available)
333-05 EX09 AM	Adolescent (Available)
333-05 EX10 AM	PAIN
333-05 EX01 PM	Brooks, Traci
333-05 EX02 PM	Breitling, Stefan
333-05 EX03 PM	Isolation Room
333-05 EX04 PM	Adolescent (Available)
333-05 EX05 PM	Fitzgerald, Susan
333-05 EX06 PM	Martins, Kelly
333-05 EX07 PM	Ramirez, Guadalupe

Thank you!

