



Evaluating Risk and Workload with DOAC Patients; One Year Later

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Why is measuring work important?



Barriers

- Greatest challenge is financing
- Studies of cost-effectiveness for DOACs do not include costs of clinic support
- Change in culture

Drivers

- Changing payment landscape
- Focus on holistic strategies to improve care and reduce expenses
- Responsibility for costs of care, not just fee-for-service costs
- Strategies to reduce adverse drug events financially beneficial



Robust Data is Lacking



- Assessment of patient outcomes is important
- Assessment of clinic function and costs is important
- Assessment of cost avoidance is important



Budgeting

not a plan for doing what we've always done



- Goals of budgeting
 - constantly get better at what we do
 - Benchmarking
 - Technique to find best practices
 - Productivity measurement
 - Cut fat rather than lean, guard against the motivation to sacrifice the mission
 - Cost benefit/cost effectiveness analysis
 - The key to working smarter not harder lies in changing processes



Goals



- To measure the relative amounts of resources consumed in providing specific services for patients
- To consider RN time and care intensity in the measurement
- To provide an analytical method for measuring productivity
- To use historical data for deriving meaningful benchmarks
- To remove subjectivity
- To bring credibility to requests for equipment and staffing



Leveraging the Warfarin RCA RVU Model

Application to the DOACs



Weighted Risk Class Assessment

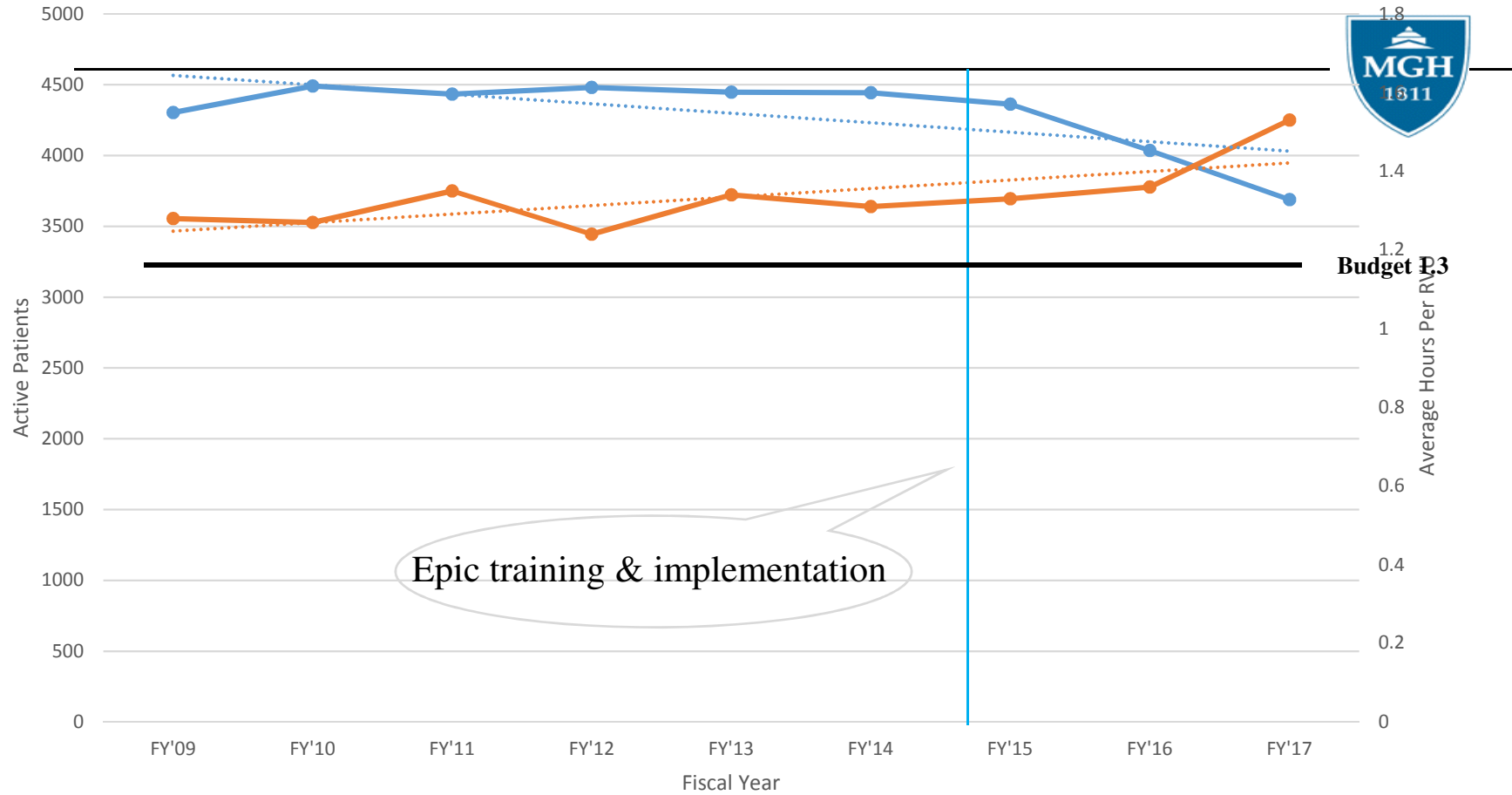
- Grouping patients on basis of common clinical characteristics and level of resource use
 - Requirement for nursing care
 - Critical indicators predict intensity of care needs
 - Quantification of nursing care resources
 - Direct observation and time studies
 - Method for calculating staffing for required nursing hours
 - RVU model

Relative Value Units

- Analytical method for measuring productivity
 - Removes subjectivity
 - Adjusts for variations among patients
 - Captures major work drivers
 - Informs understanding of patient needs and changes in the population



Active Warfarin Patients vs Av Hrs/RVU



Epic training & implementation



—●— Active Patients
 —●— Av Hrs/RVU
 ····· Linear (Active Patients)
 ····· Linear (Av Hrs/RVU)

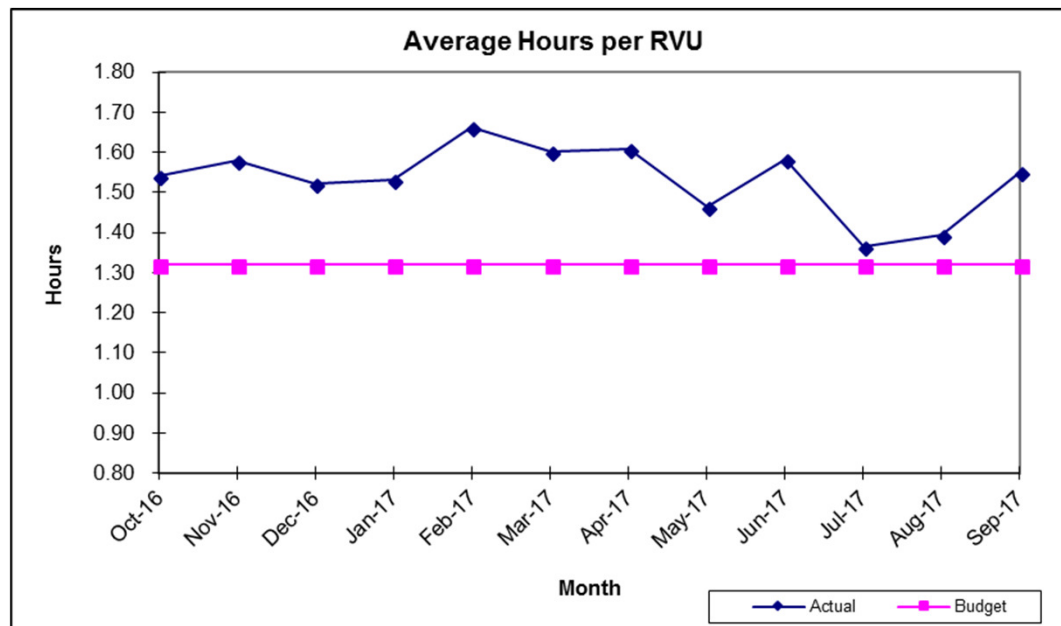
Workload – Productivity Report

FY'17



Anticoagulation Services Nursing FY'17 Workload – Productivity Report

YTD Performance														
YTD: September 2017	Total FTE					Direct Care FTE				Productivity				
	Mgmt.	Support	Direct Care		Total	Direct Care Paid FTE	Bnft FTE	% Bnft worked FTE		RWU	Direct FTE	Other worked FTE	% Direct	Avg. Hours Per RWU
Category			BN	Non-BN										
Actual	2.8	3.9	10.8	-	17.6	10.8	1.5	15.7%	9.4	12,735	6.1	3.3	65.3%	1.53
Budget	2.8	4.0	10.6	-	17.4	10.6	1.2	13.3%	9.4	14,724	7.1	2.3	75.7%	1.32
Variance	-	0.1	(0.2)	0.0	(0.2)	(0.2)	(0.2)	2.4%	(0.0)	(1,989)	1.0	(1.0)	10.4%	(0.21)

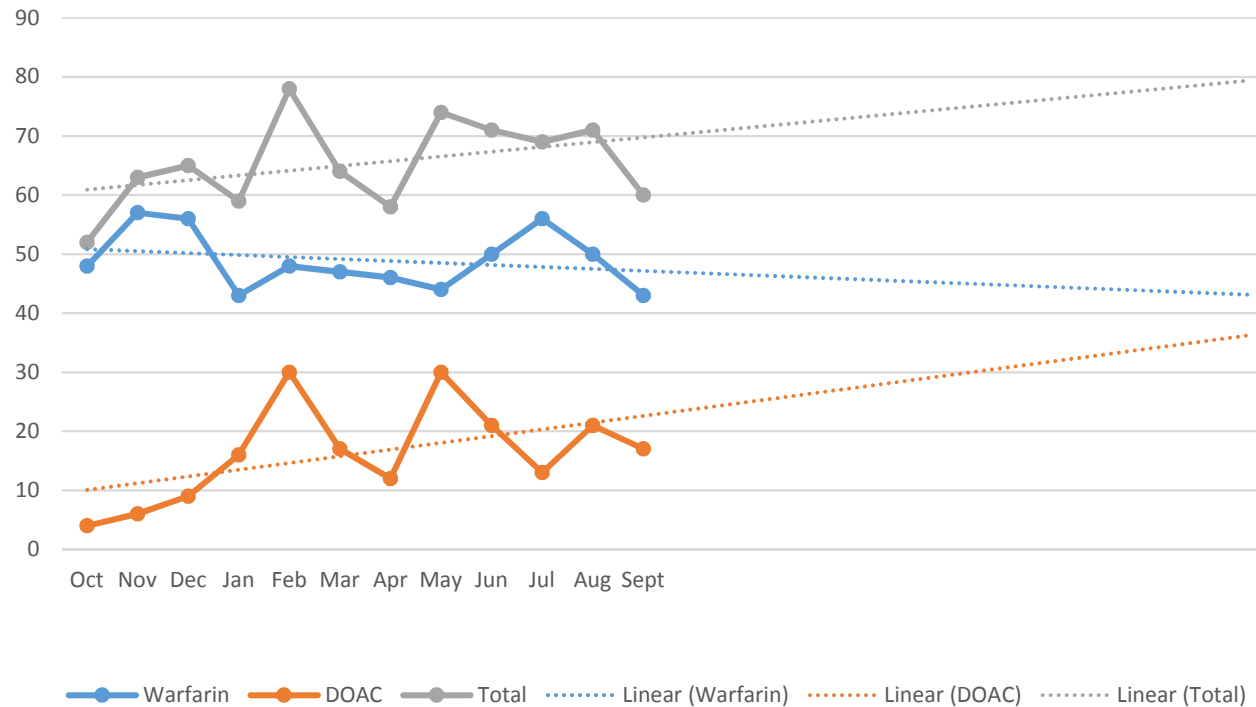


Growing Volume

engage with a new crowd, expand services



MGH AMS Total Patient Education Visits
FY'2018



Incorporating DOAC Services into the AMS



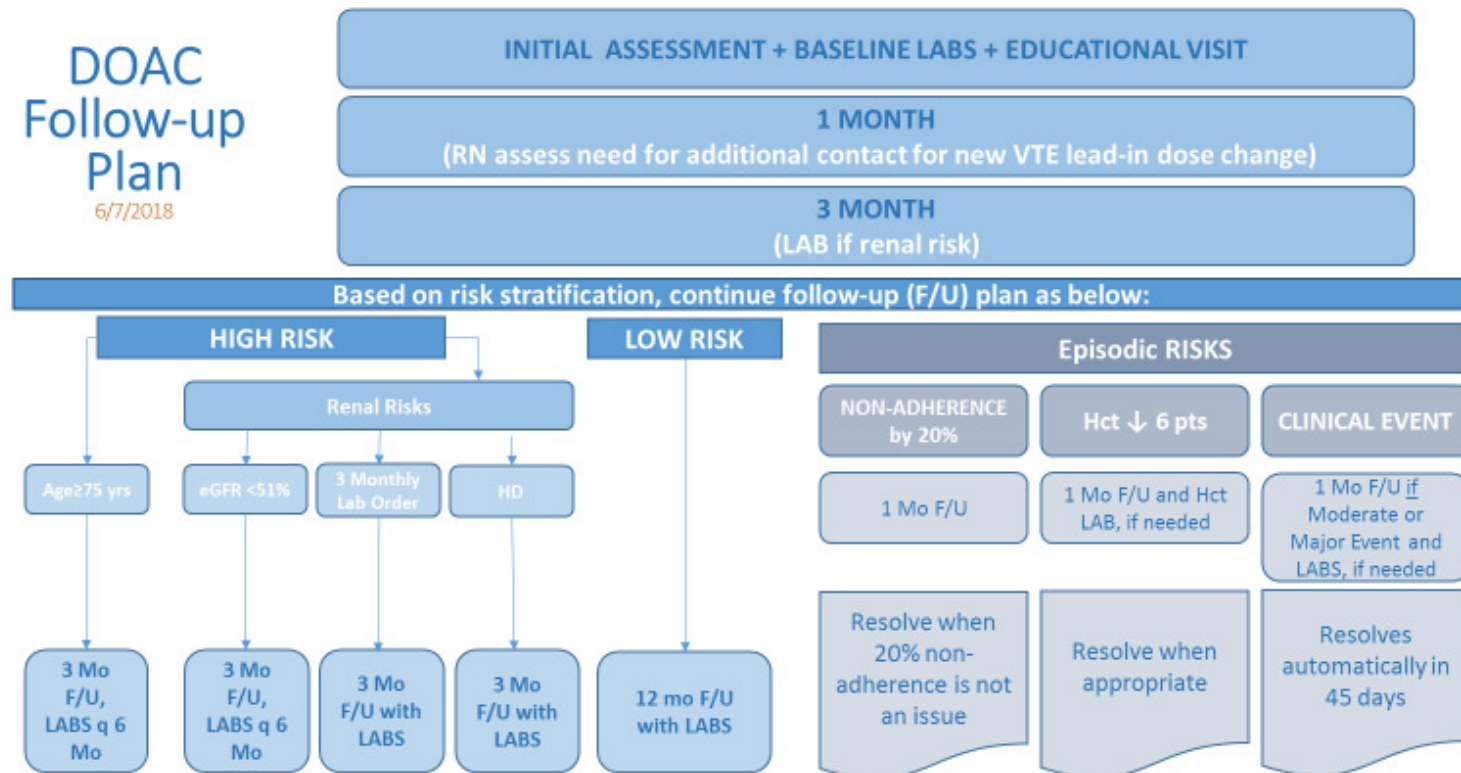
- Routine monitoring
 - Improved safety and quality of care
 - Increased adherence
 - Increased safety monitoring
 - Increased patient education
 - Reduced cost and utilization of acute care services
 - Anticoagulants most common
 - Drug-related hospitalizations
 - Emergency department visits



DOAC Follow-up Plan



DOAC
Follow-up
Plan
6/7/2018





*As we work to improve
productivity in health care, we
must always guard against
motivation to sacrifice the
mission.*



Calculating Risk Class

The Assessment



Applies to ALL therapies

Scores

Drug, New Patient, and DNA scores DO NOT apply for DOAC therapies

Risk Score	Event Score	Proc. Score	Drug Score	Age Score	New Pat. Score	DNA Score	Total Risk
0	0	0	0	0	X	X	0

Age ≥ 75
Hct drop ≥ 6
Renal Risk (3 monthly labs)
Renal Risk (Dialysis)
Renal Risk (eGFR <51)

(W) & (D) Age ≥ 65
(D) Age ≥ 75

DOAC Event – Bleeding (45 day)
DOAC Event – Thrombosis (45 day)
DOAC Event – Adherence (14 day)
Economic
Forgetfulness
Side effects
Condition related
DOAC Event – Procedural Interruption (21day)



DOAC List View

Prioritize your to do list



Non-Adherence Risk

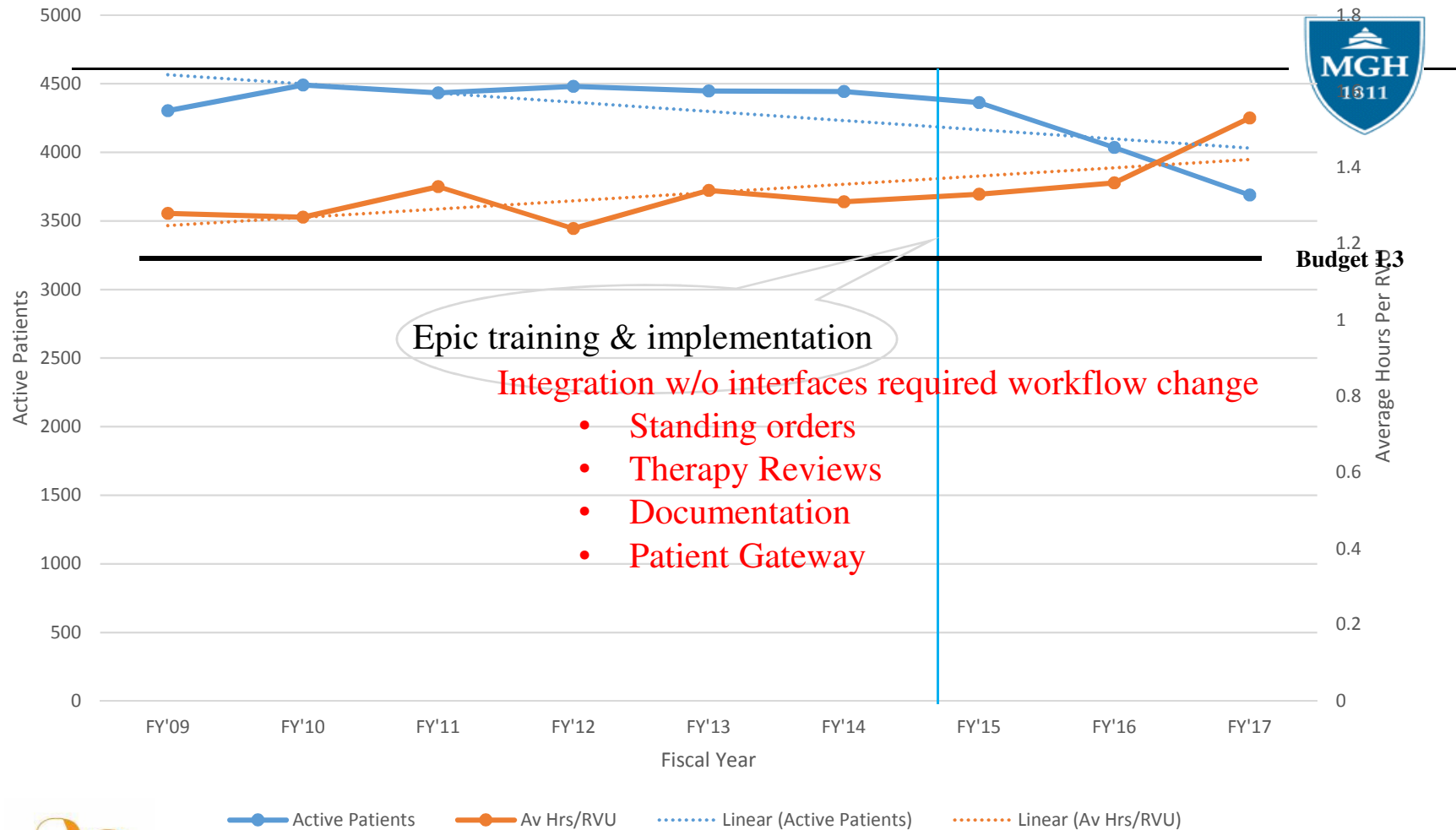
Renal Risks

The screenshot shows a software interface for DOAC list view. It features a filter section on the left and a main table with columns for 'NonAd' and 'Renal'. Red arrows point from the text labels 'Non-Adherence Risk' and 'Renal Risks' to the 'NonAd' and 'Renal' columns respectively. The table is divided into two sections: 'DOAC - High Risk >526' and 'DOAC - Low Risk <527'. The 'High Risk' section has two rows with 'Y' in the 'NonAd' column and 'D' in the 'Renal' column. The 'Low Risk' section has two rows with 'Y' in the 'NonAd' column and 'D' in the 'Renal' column. The table also includes columns for 'Appointment Date' and 'Time'.

Filter With Scheduled		NonAd	Renal	Appointment Date	Time
DOAC - High Risk >526					
Name	Age	Y	D		
		Y	D	Risk >526 01/10/2019	
				Risk >526 06/07/2019	
DOAC - Low Risk <527					
Name	Age				
		Y	D	Risk <527 04/25/2019	
				Risk <527 05/08/2019	
		Y	D	Risk <527 12/07/2018	
		Y	D		



Active Warfarin Patients vs Av Hrs/RVU



Measuring Productivity

Calculating Relative Value Units



MGH Anticoagulation Services									
Direct Care FTE				Productivity					
Direct Care						Other			Avg. Hours
<u>Paid FTE</u>	<u>Bnft FTE</u>	<u>%Bnft</u>	<u>Worked FTE</u>	<u>RVU</u>	<u>Direct FTE</u>	<u>Worked FTE</u>	<u>%Direct</u>		<u>Per RVU</u>
9.9	1.4	16.7%	8.5	13,003	6.5	2.0	76.6%		1.31
10.3	1.5	17.0%	<u>8.8</u>	<u>13,500</u>	<u>6.5</u>	<u>2.3</u>	<u>73.9%</u>		<u>1.35</u>
0.4	0.1	-0.3%	0.3	(497)	(0.0)	0.3	-2.7%		0.05

$$\frac{13500 \text{ RVU}}{2080 \text{ Annual Work Hrs}} = 6.5 \text{ Direct FTEs}$$

$$\frac{8.8 \text{ Worked FTEs} \times 2080 \text{ Annual work Hrs}}{13500 \text{ RVU}} = 1.35 \text{ Av Hrs/RVU}$$



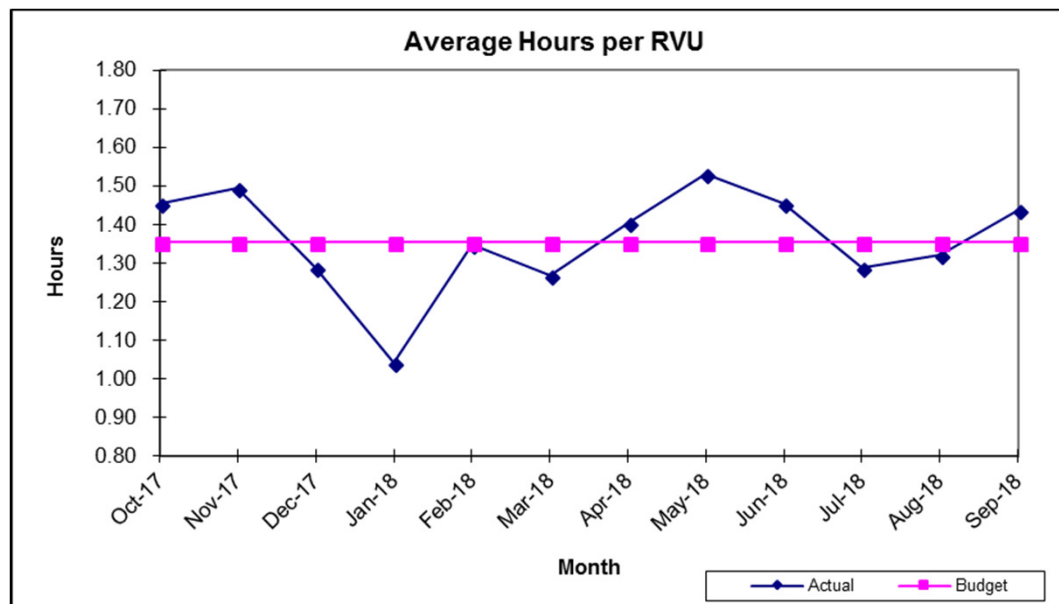
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FY'18



Anticoagulation Services Nursing FY'18 Workload - Productivity Report

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Category	Mgmt	Support	Direct Care		Total	Direct Care			RVU	Other		%Direct	Avg. Hours Per RVU	
			RN	Non-RN		Paid FTE	Bnft FTE	%Bnft Worked FTE		Worked FTE	%Direct			
Actual	2.8	3.9	9.9	-	16.6	9.9	1.4	16.7%	8.5	13,003	6.5	2.0	76.6%	1.31
Budget	2.8	4.0	10.3	-	17.1	10.3	1.5	17.0%	8.8	13,500	6.5	2.3	73.9%	1.35
Variance	-	0.1	0.4	0.0	0.5	0.4	0.1	-0.3%	0.3	(497)	(0.0)	0.3	-2.7%	0.05



Measuring Workload

Not the Final Word



8/26-9/27/18 - Weeks 49-52

Excluding Education Visits - 60 minutes for either therapy

DOAC vs Warfarin Workload Comparison (8/26-9/27/18)

DOAC	Volume	Time in Minutes	Total Time in Minutes	Warfarin	Volume	Time in Minutes	Total Time in Minutes
Candidate QNR	20	30	600	Authorized INRs			
Followup QNR				Induction			
Low Risk	24	10	240	Low	68	20	1360
High Risk	21	15	315	High	39	25	975
Event Followup				Complex	60	30	1800
Bleeding/Thrombosis				Manual/Bridging			
Adherence				Controlled	142	10	1420
Therapy Interruption				Low	192	15	2880
Therapy Change to Warfarin				High	112	20	2240
Reactivation				Complex	51	25	1275
Discharge from Hospital				Maintenance			
Return from Suspension				Controlled	4733	5	23665
				Low	1562	8	12496
				High	180	12	2160
				Complex	50	15	750
Total Minutes/month			1155	Total Minutes/month			51021
Total DOAC Patients			194	Total Warfarin Patients			3495
Minutes Per Patient/month			6.0	Minutes Per Patient/month			14.6



2.45 warfarin patients : 1 DOAC patient

Thank You



Questions...

