



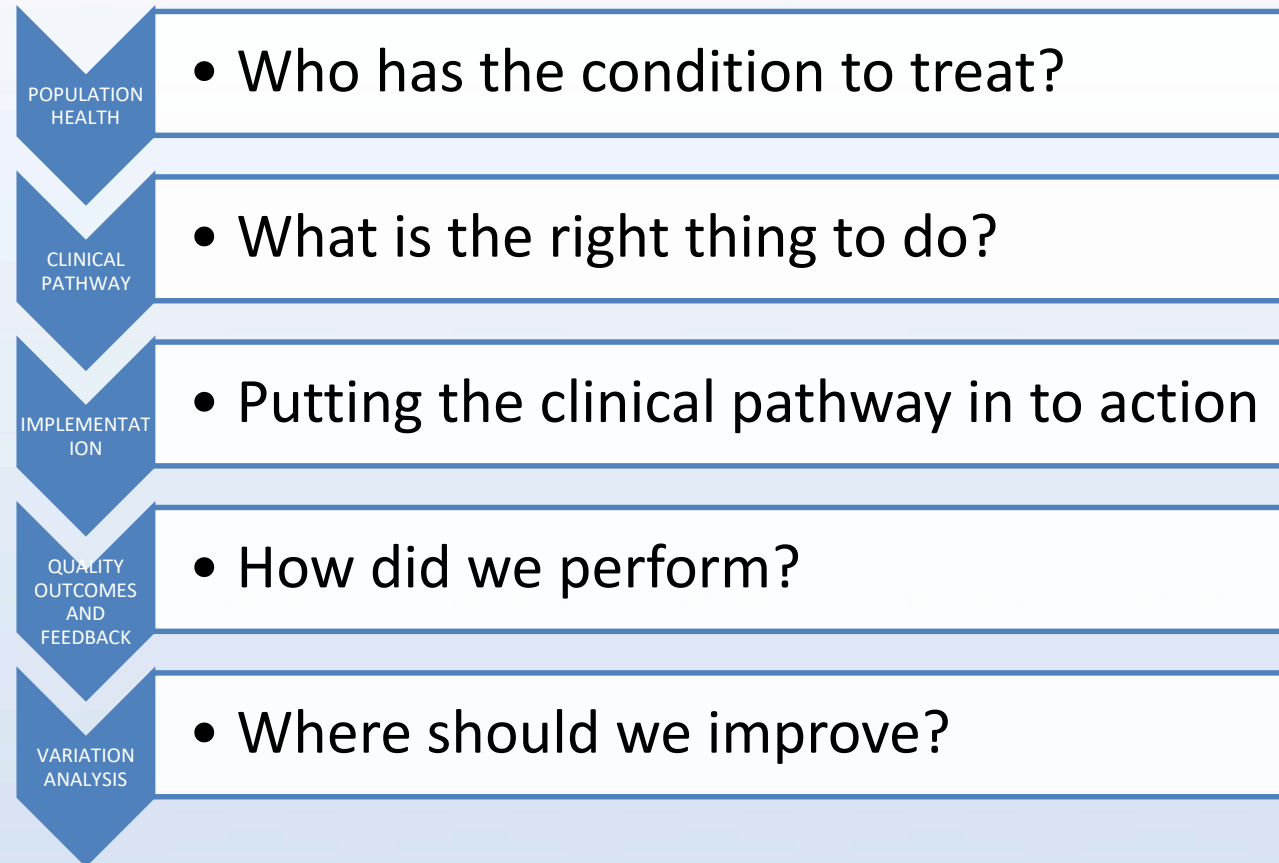
Geisinger

**Optimizing Hepatitis C Treatment: Hepatitis C Center
of Excellence**

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and

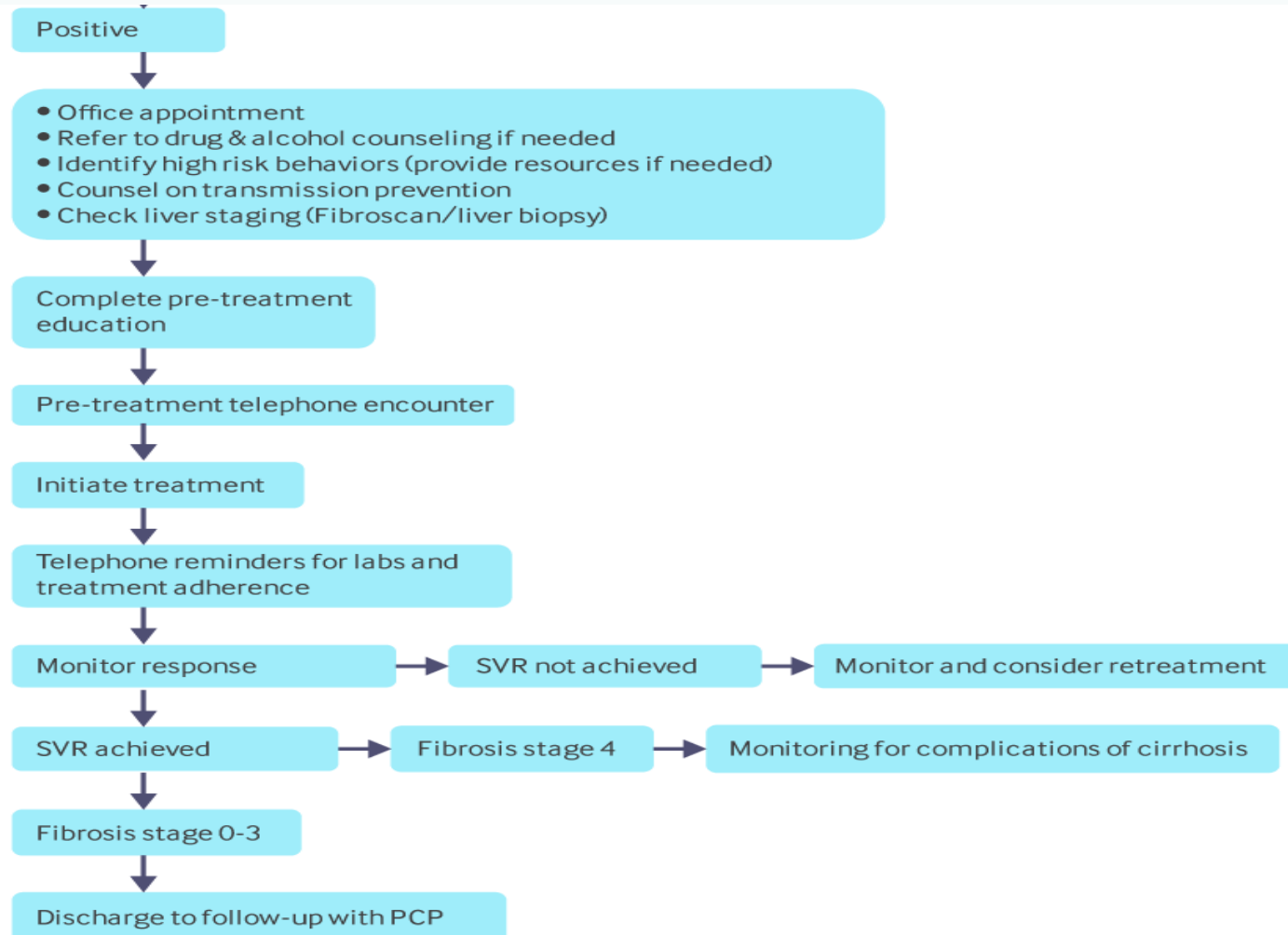
CarePath Road Map



Hep C: Proven Care Backbone

- Program
 - Clinical efficacy is the key driver
 - Monitor cost, eliminate waste
 - Increased adherence
 - Site of care
 - Matching genomic attributes to prescribing & outcomes
 - Aligning benefits with clinical decisions/efficacy
- Contracting
 - Formulary alignment
- Development of multidisciplinary team
- CarePath development
- Education

Hep C: Putting the clinical pathway in to action



Hep C: How did we perform?

PATIENT SUMMARY

Earliest Possible SVR Date	Known SVR Achieved	MRN	Birth Date	Sex	Ghs Pcp	Genotype	Fibrosis Stage	Coinfections	REGEMIN	Hepatology Visits	Latest Viral Load Date	Latest Viral Load Result	
5/29/2017	1		12/23/1981	F	1	Genotype 1a	F2	HCV Only	ZEPATIER	12 WEEKS	1	6/27/2017	NEGATIVE
			5/27/1962	M	1	Genotype 1a	F4	HCV+HIV	HARVONI	12 WEEKS	1	6/20/2017	NEGATIVE
			3/21/1990	M	1	Genotype 1a	F0	HCV Only	ZEPATIER	12 WEEKS	1	6/21/2017	NEGATIVE
			5/19/1958	F	1	Genotype 1a	F2	HCV Only	ZEPATIER	12 WEEKS	5	6/23/2017	NEGATIVE
5/25/2017	1	GHS MRNs Redacted	4/8/1967	F	1	Genotype 3	F4	HCV Only	EPCLUSA	12 WEEKS	3	6/22/2017	NEGATIVE
			7/29/1963	M	1	Genotype 1a	F3	HCV Only	HARVONI	12 WEEKS	1	6/16/2017	NEGATIVE
5/22/2017	0		12/17/1981	M	1	Genotype 1a	F4	HCV Only	HARVONI	12 WEEKS	2	5/5/2017	NEGATIVE
			1/8/1961	M	0	Genotype 1a	NO RESUL..	HCV Only	HARVONI	12 WEEKS	5	Null	Null
			3/9/1982	F	1	Genotype 1a	F0	HCV Only	ZEPATIER+RIBAVIRIN	...	1	6/15/2017	190742
			2/4/1958	M	0	Genotype 1a	NO RESUL..	HCV Only	HARVONI	12 WEEKS	1	6/13/2017	NEGATIVE
			11/12/1956	F	1	Genotype 1a	F2	HCV Only	ZEPATIER	12 WEEKS	2	6/21/2017	NEGATIVE
5/19/2017	1		1/2/1967	F	0	Genotype 1a	F1	HCV Only	ZEPATIER	12 WEEKS	1	6/1/2017	NEGATIVE
			12/9/1966	M	1	Genotype 1a	F0	HCV Only	ZEPATIER	12 WEEKS	1	6/21/2017	NEGATIVE

PROBLEM COMMENTS re SVR (if available)

MRN (hep c..)	Diagnosis C..	Dx Name	Problem Cmt
B18.2	Chronic hepatitis C without he..	HCV treated; SVR confirmed 6/26/2017	

EVENTS DETAIL

MRN (hep c tx svr detail)	Day of Event Date	Event Type	Simple Generic	Day of Start Date	Day of End Date	Viral Load
	3/3/2016	VIRAL LOAD				548560
	6/1/2016	VIRAL LOAD				594216
	10/26/2016	VIRAL LOAD				248831
	11/22/2016	EPIC MED ORDER	Elbasvir-Grazoprevir	11/22/2016	3/27/2017	
	12/5/2016	GHP ORDER FILL	Elbasvir-Grazoprevir			
	1/9/2017	GHP ORDER FILL	Elbasvir-Grazoprevir			
	1/25/2017	VIRAL LOAD				NEGATIVE
	2/6/2017	GHP ORDER FILL	Elbasvir-Grazoprevir			
	3/29/2017	VIRAL LOAD				NEGATIVE
	6/27/2017	VIRAL LOAD				NEGATIVE

Hep C: How did we perform?

- SVR rates GHP/GHS COE: 98.5%
- SVR national comparison rates: 85%-90%
- SVR rate for GHP/nonGHS: manually collated data due to low recoverable results
- QA/QI process monitors physician compliance of Care Path
- Dashboard
- The large volume of cases within the COE has allowed us to determine/tailor:
 - The optimal drugs for treatment
 - The optimal duration of treatment

SVR = Sustained Virologic Response aka “cure”

Hep C: Where should we improve?

- As new/better agents have come to market, we've adjusted the Carepath
- This has resulted in improvements to cost and even better effectiveness – in terms of SVR rates and the utility of the agents across genotypes
- Harvoni → Zepatier → Mavyret
 - Versatility across genotypes
 - Does not require NS5A resistance testing

Hep C: Where should we improve?

- HCV NAT positive kidney & liver transplantation
- 2014 annual report from the Scientific Registry of Transplant Recipients, newly listed liver transplant patients increased by 11%, while the number of transplants only increased by 4.4%
 - HCV positive kidneys/livers are otherwise under-utilized donor pools that have the potential to significantly impact survival in well selected candidates
- Program started October 2018
 - 2018: 3 kidney transplants & 1 liver transplant
 - 2019 (to date): 13 kidney transplants & 3 liver transplants

Hep C Lessons Learned

- A collaborative approach brings higher value
- Patients receive higher quality care
- The total cost of care is decreased
- The goal is to provide this level of care to all Geisinger patients
 - Scale Center of Excellence by adding capacity and sites
 - Design benefits to drive members to Center of Excellence



Geisinger

Thank you!

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