


OMED COLORECTAL CANCER SCREENING COMMITTEE MEETING

Saturday, May 1, DDW New Orleans, 2010
 Presenter: Catherine Lofton-Day



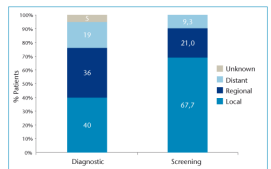
**World Organisation of
Digestive Endoscopy**

Colorectal Screening Committee

Catherine Lofton-Day, PhD
 Looking into alternatives: blood-based tests for
 CRC screening

Screening for Colorectal Cancer Reduces Mortality


Colorectal Cancer Stage Distribution at Diagnosis




Study	Length of Study	Number of Patients	Reduction in Mortality
Minnesota ¹	18 Years	65,501	21%* 33%**
Finland, Denmark ²	10 years	137,485	16%*
Nottingham, UK ³	10 years	152,850	15%*

¹ National Cancer Institute Cancer Facts and Figures, 2002. ² JAMA. 1998;279:1204-1210. ³ Gut. 2000;49:1023-1028.

- More early stage CRC are detected when screening is applied
- Even with gFOBT detecting only 30-40% cancer cases, mortality is reduced

epigenomics 

...But is poorly adopted by the target group




Compliance	FOBT	Colonoscopy
U.S.A. ¹	~12%	~40%
Germany ^{2,3}	~16%	~30%

¹ JAMA. 2008;299:1231-1238. ² Gut. 2000;49:1023-1028. ³ JAMA. 1998;279:1204-1210.

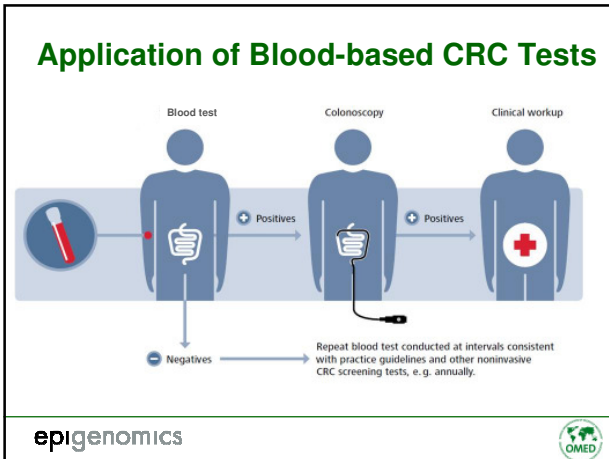
- Screening Guidelines (US, GER): FOBT and/or colonoscopy from the age of 50
- The majority of eligible individuals do not follow screening recommendations
- Reasons include
 - Reservations against stool testing and colonoscopy
 - Fear of invasive procedures
 - Lack of time
 - Lack of convenience of current screening methods

60% of cancers detected in advanced stages

Jamal A, Siegel R, Ward E, et al. Trends: Cancer statistics: CA Cancer J Clin. 2008 Jul-Aug;58(4):22-46. Page 46

epigenomics 

OMED COLORECTAL CANCER SCREENING COMMITTEE MEETING
Saturday, May 1, DDW New Orleans, 2010
Presenter: Catherine Lofton-Day



Currently Available Blood-Based CRC Tests

Septin9 DNA Methylation Test			mRNA Panel
Epi proColon	mS9	ColoVantage™	ColonSentry
Epigenomics	Abbott Molecular	Quest Diagnostics	GeneNews
CE-IVD: EU	CE-IVD: EU, APAC	LDT: USA	LDT: CAN
Roche LC480/ABI 7500fast	m2000	N/A	N/A

epigenomics

Comparison of Tests for Identification of CRC

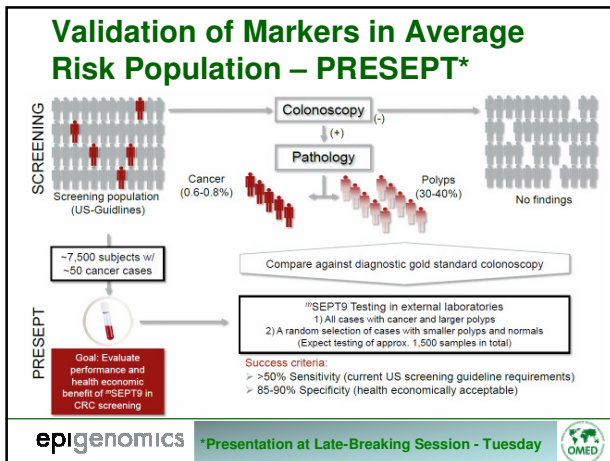
	Colonoscopy (Gold Standard)	FOBT (Hemoccult)	iFOBT	Stool DNA (ColoSure)	Blood RNA (ColonSentry)	Epi proColon (™SEPT9)
Sample	n/a (endoscopic)	Stool	Stool	Stool	Blood	Blood
Price to Payor	~EUR 200 ~US\$ 300	~EUR 5 ~US\$ 5	~EUR 35 ~US\$ 30	US\$ 220 – 399	US\$ 660	~EUR 150 ⁵ ~SFR 240 ⁶
Sensitivity	97% ¹	37% ²	69% ²	72 - 77% ³	82% ⁴	~70% ⁷
Specificity	98% ¹	98% ²	94% ²	83 - 94% ³	64% ⁴	~90% ⁷
Availability	by Gastroenterologist	IVD	IVD	LDT (US only)	LDT (CAN only)	US: LDT EU: LDT + IVD

"It is clear that the convenience and simplicity of a plasma assay would be considerable."
 Levin, B. Molecular screening testing for colorectal cancer, Clin Cancer Res 2006; 12(17) Sept 1, 2006

1. Quisenberry et al. 2005. N Engl J Med 353:247-256
 2. Hylek et al. 2005. N Engl J Med 353:247-256
 3. Lippman et al. 2005. N Engl J Med 353:247-256
 4. Wang et al. 2005. N Engl J Med 353:247-256
 5. Wang et al. 2005. N Engl J Med 353:247-256
 6. Wang et al. 2005. N Engl J Med 353:247-256
 7. Wang et al. 2005. N Engl J Med 353:247-256

epigenomics

OMED COLORECTAL CANCER SCREENING COMMITTEE MEETING
Saturday, May 1, DDW New Orleans, 2010
Presenter: Catherine Lofton-Day



Conclusions

- Patient compliance is a major factor in low colorectal cancer screening rates
- New blood tests are now available that could improve screening rates for patients that do not or cannot use currently available methods
- Studies are being conducted that will provide additional support for use of blood based tests for population screening

epigenomics
