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European Medtech:

The Grass Is Not Greener

June 2013

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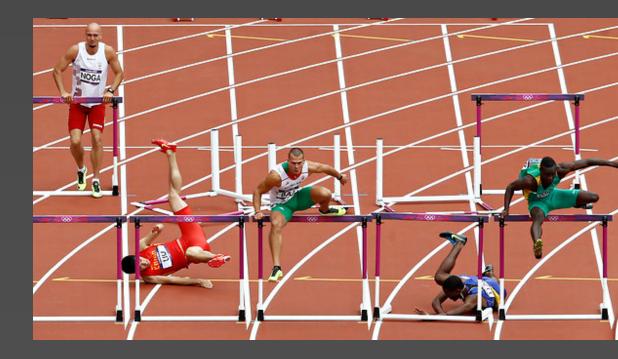
US medtech woes

"AdvaMed, Device Companies Claim FDA's 510(k) Pre-Review Guidance Lacks Objectivity" October 2012

"Medical Device Manufacturers to Lay Off Thousands" November 2012

"Medical device tax: has it changed the medtech investment cycle?" May 2013

"Sluggish FDA device approvals frustrate cardiologists" May 2013



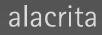
The myths of "greener grass" in Europe

Myth: Europe is the second largest medtech market globally

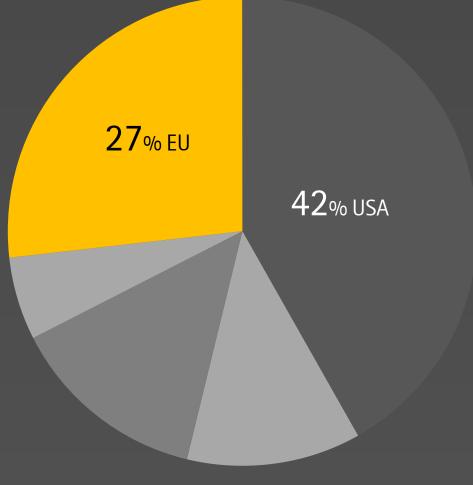
Myth: **CE Mark** is less risky and much faster to achieve than a 510(k) and proves product viability

Myth: CE Mark provides access to 27 countries allowing rapid commercialisation across Europe





Europe may be the second largest medtech region...



2011 medtech sales Source: EUCOMED, Espicom, Frost & Sullivan, Alacrita analysis

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...but Europe is very hard to navigate

Not a "single market" 27 national markets subdivided into many distinct regions

Reimbursement systems Shifted from best possible care to best value, acceptable care

Bureaucracy A word created in Europe





The CE mark hurdle is set to rise

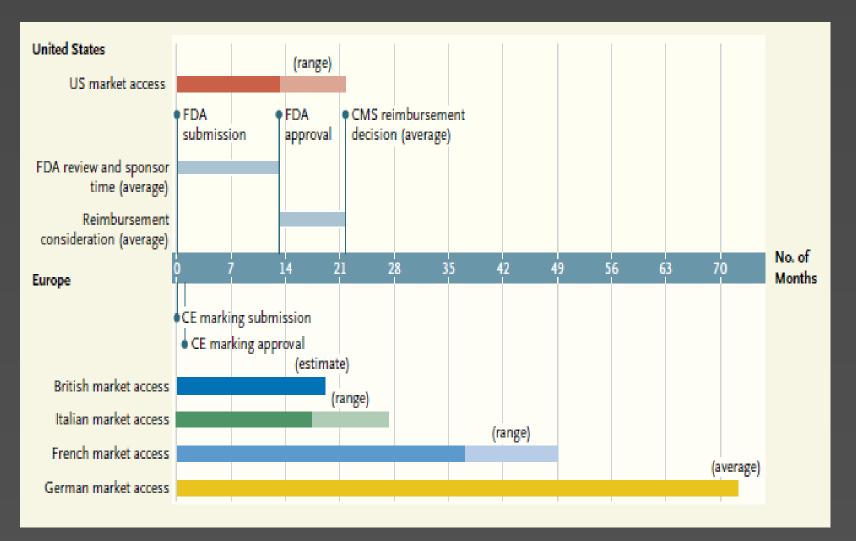
EU Regulation on IVDs will:

- Re-rate risk categories
- Require more clinical evidence requirements
- Tighten up assessment procedures

For medical devices:

- EC has proposed a new level of scrutiny
- Members of the EP proposing new system of pre-market approval
- Changes likely from 2017 onwards

Time-to-market vs. time-to-CE mark



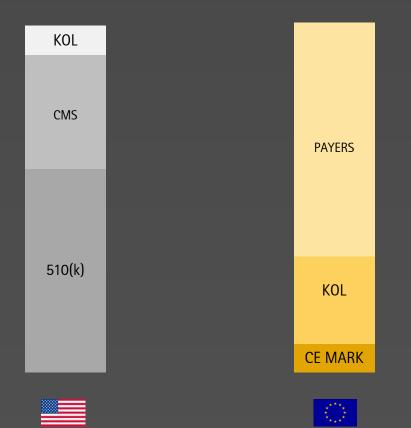
N Engl J Med 2012; 367:485-488

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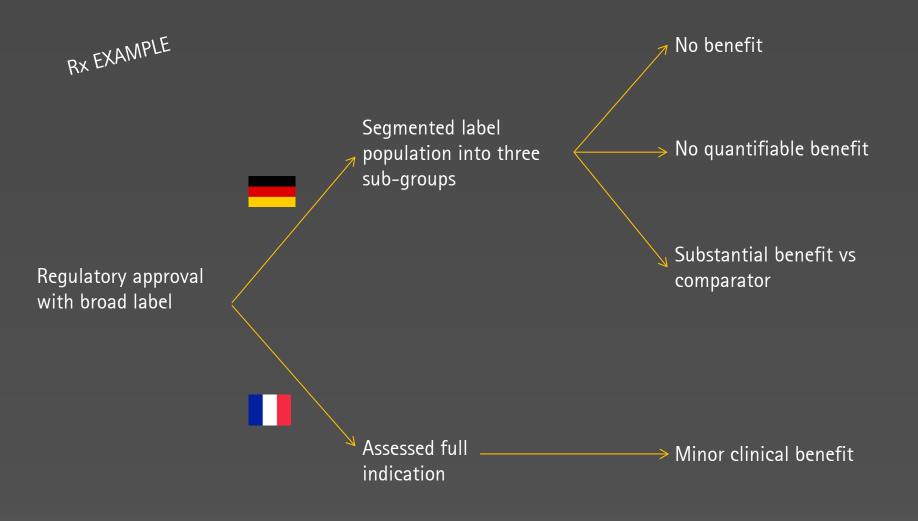
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Different risk profiles, same hurdle height





EU payers can take differing views



Payers often restrict both access and price

DRAFT GUIDELINE

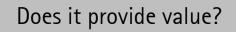


Oncotype DX is recommended in people with oestrogen receptor positive (ER+), lymph node negative (LN-) and human epidermal growth factor receptor 2 negative (HER2-) early breast cancer to guide chemotherapy decisions if:

- the person is assessed as being at intermediate risk, and
- where the decision to prescribe chemotherapy remains unclear, so that information on the biological features of the cancer provided by Oncotype DX is likely to help in predicting the course of the disease, and
- the manufacturer provides it to NHS organisations at the price offered through the confidential arrangement agreed with NICE.



What payers really want



How well does it work?

- Safety
- Clinical performance
 - Setting
 - Patient subgroups
 - Comparator(s)

Can it save money?

- Price
- Health system costs
- (Societal costs/benefits)

Payer relevance extends to early development



- Post launch: value dossier, pricing negotiations, HEOR trials, Service Impact Models, etc
- During development:
 - Payer value elements (clinical and economic) in product profile
 - Clinical trial design to address payer needs
 - Additional payer evidence programme

Design 'strategic market access' into the project

| MAPPI analysis | | Economic Argument Potential | | |
|--|------|--|---|-------------------------------|
| ↑ | | High | Med | Low |
| Payer Evidence Potential (Clinical) | High | Go | | Go but review price target |
| | Med | Review clinical development strategy | Question the overall value proposition: evidence hurdles may be too high; price may not be supportable | |
| | Low | No Go | | |

Source: Therapeutic Challenges Analysis, adapted from: http://www.therachallenges.com/mappi.html



Seek input from 'real payers'

Illustrative Payer Research Panel

| Germany | Head of product supply and reimbursement of a Statutory Health Insurance covering 4m Negotiates NUBs (Neue Untersuchungs- und Behandlungsmethoden) with hospitals |
|---------|---|
| | Member of INEK (Institute for the Hospital Remuneration System) Involved in the definition DRG codes and associated reimbursement rates Reviews applications for NUBs at national level |
| France | Member of the CNEDiMTS at HAS (Haute Authorité Santé) Reviews and votes on new products/indications (SA & ASA, reimbursement recommendations) |
| | President of the COMEDIMS (New Drug Committee) at APHP (Paris Public Hospital Group) Vice President of the AMM Commission at AFSSAPS |
| Italy | Member of regional Commissioni Regionali Dispositivi Medici: evaluates novel Medical Devices and issues recommendations on their use |
| | Member of Lombardi HTA agency |
| UK | Member of NICE appraisal committee Head of the Liverpool Health Economics Unit |
| | Formulary Advisor for Surrey & Sussex NHS Trust; leads regional Joint D&T Committee Member of the External Reference Group on Cost Impact Modeling for NICE |

| By Erin McCallister Senior Writer Based on advice being given to t Centers for Medicare & Medica | |
|---|---|
| Services, it looks like molecular of | on land |
| the horns of the same unerning | tor |
| and may not be suitclefit for | |
| imbursement, and the data payers v may be difficult to obtain even in | the |
| i what cotting | |
| In this case, CMS could issue a | |
| for DNA- and RNA-based tests for | can- |
| cer of unknown primar Medicaid S | ervices does not take into account a device's comparative effectiveness or its cost relative to alternative treatment options |
| nolicy to allow access when deter | mining remoursement. Coverage decisions are instead, based on poor or initiate evidence norm clinical studies, the |
| enrolled in clinical tr authors write | te. |
| while the companies to data. To bring U. | S. spending on new medical technology more in line with its European counterparts include, the authors recommend: |
| If the agency does 5 | |
| supersede decisions by are currently paying f | iring companies to submit extensive evidence that new devices are safer and of greater therapeutic benefit than those |
| On May 1, CMS's airea | ady on the market; |
| 0 0 0000 | ect several years of data on the safety and comparative effectiveness of new devices once they are on the market to help |
| not sufficient data t | rmine pricing and coverage; and |
| | e reimbursement and copayment rates on the evidence-based value of devices. |
| | |

Europe is worth considering...

...and although it's not as easy as you think ...

... it may provide valuable market access lessons

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