

VII Uroczysty Obiad
Czwartkowy



Warszawa, 19 maja 2011, godz. 15:00
Centrum Edukacji Medycznej CEMED
ul. Pory 78, 5 piętro (wejście przez Carolina Medical Center)



Temat: **Risk sharing scheme – Instrumenty podziału
ryzyka w świetle ustawy refundacyjnej**

Risk Sharing Arrangements – Potential guidance for the future

WARSAW May 2011

Prepared by Brian Godman



UNIVERSITY OF
LIVERPOOL



**KAROLINSKA
INSTITUTET**
ett medicinskt universitet 

MARIO NEGRI
ISTITUTO DI RICERCHE
FARMACOLOGICHE



1. Introduction and workable definition

2. Examples of risk sharing schemes and areas of concern

3. Conclusion and future guidance



- New expensive drugs account for over 50% of in-patient drug budget in Marseilles hospitals - growing at over 20% per year
- New biological drugs with acquisition prices over \$50,000 to \$100,000/ patient/ year are adding to resource pressures - some with only marginal health gain
- The resource pressures will intensify
- Consequently, new models are needed to optimise the managed entry of new premium priced drugs. This includes a critical appraisal of risk sharing arrangements by all key stakeholder groups



- Most new drugs have only limited health gain despite premium prices requested:
 - In Austria, only 10% of new drugs seen as innovative - substantially added benefit
 - In Belgium, approximately 20% of new medical entities during a recent 3-year period received Class 1 status
 - In France, only 10 – 13% of new drugs received ASMR I or II in recent. This increases to 22 – 24% when products granted ASMR III included (similar to added value in Belgium – Class 1)

- A similar situation is seen in Scotland

- Consequently, critical to fully evaluate risk sharing schemes



- The Scottish Medicines Consortium (SMC) analysed their guidance for new products issued between April 2002 and September 2008
- Data extracted from base case QALY gain estimates provided by the manufacturers showed the following:
 - Overall median health gain - 0.1 QALY
 - Mean health gain - 0.5 QALYs (standard deviation 1.72)
- This broke down as:
 - 22% offered no benefit
 - 28% offered $>0 - 0.1$ QALY
 - 25% offered $>0.1 - 0.5$ QALY
 - 13% offered $>0.5 - 1.0$ QALY
 - 12% offered >1 QALY



Measuring Quality of Life (QoL)

- QoL weights reflect the subjective level of wellbeing experienced in different health states; the more preferable a health state the higher will be its associated 'value'

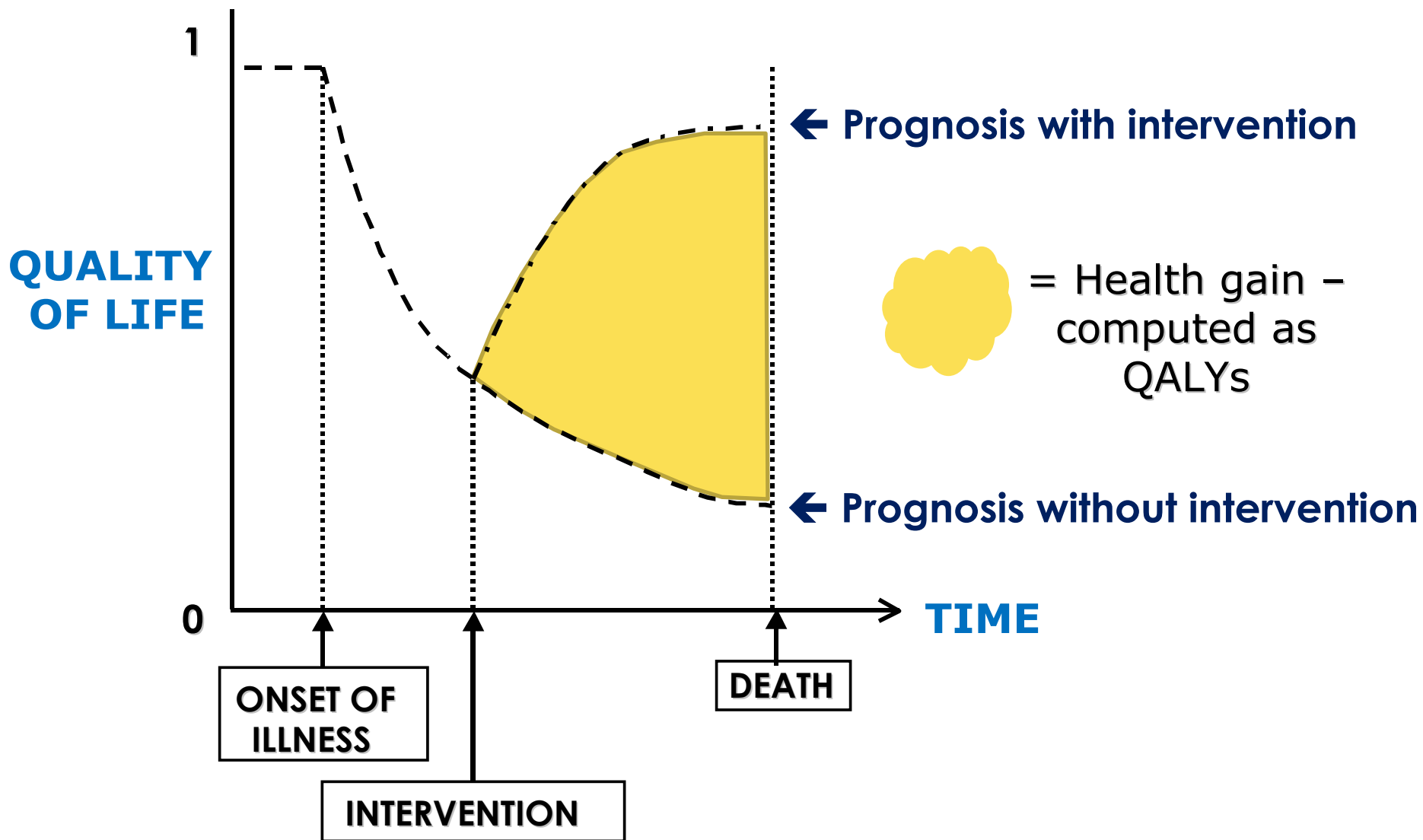
Perfect health = 1

Death = 0

- The impact of given interventions are assessed over time and compared with current/ standard treatments to compute the number of QALYs (Quality Adjusted Life Years) for the new intervention versus current standards



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- The Scottish Medicines Consortium (SMC) analysed their guidance for new products - April 2002 and September 2008
- Data extracted from base case QALY gain estimates provided by the manufacturers showed the following:
 - Overall median health gain - 0.1 QALY, i.e. additional one month of good life
 - Mean health gain - 0.5 QALYs (standard deviation 1.72)
- This broke down as:
 - 22% offered no benefit
 - 28% offered $>0 - 0.1$ QALY
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Drug	Total drug cost until disease progression and estimated increase in survival
Cetuximab	<ul style="list-style-type: none">▪ \$80352▪ 1.2 months (NSCLC)
Bevacizumab	<ul style="list-style-type: none">▪ \$90816▪ 1.5 months (Metastatic breast cancer – not statistically significant)
Erlotinib	<ul style="list-style-type: none">▪ \$15752▪ 10 days (pancreatic cancer)
Sorafenib	<ul style="list-style-type: none">▪ \$34373▪ 2.7 months (renal cell carcinoma)



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- Risk sharing schemes are not new – an early example

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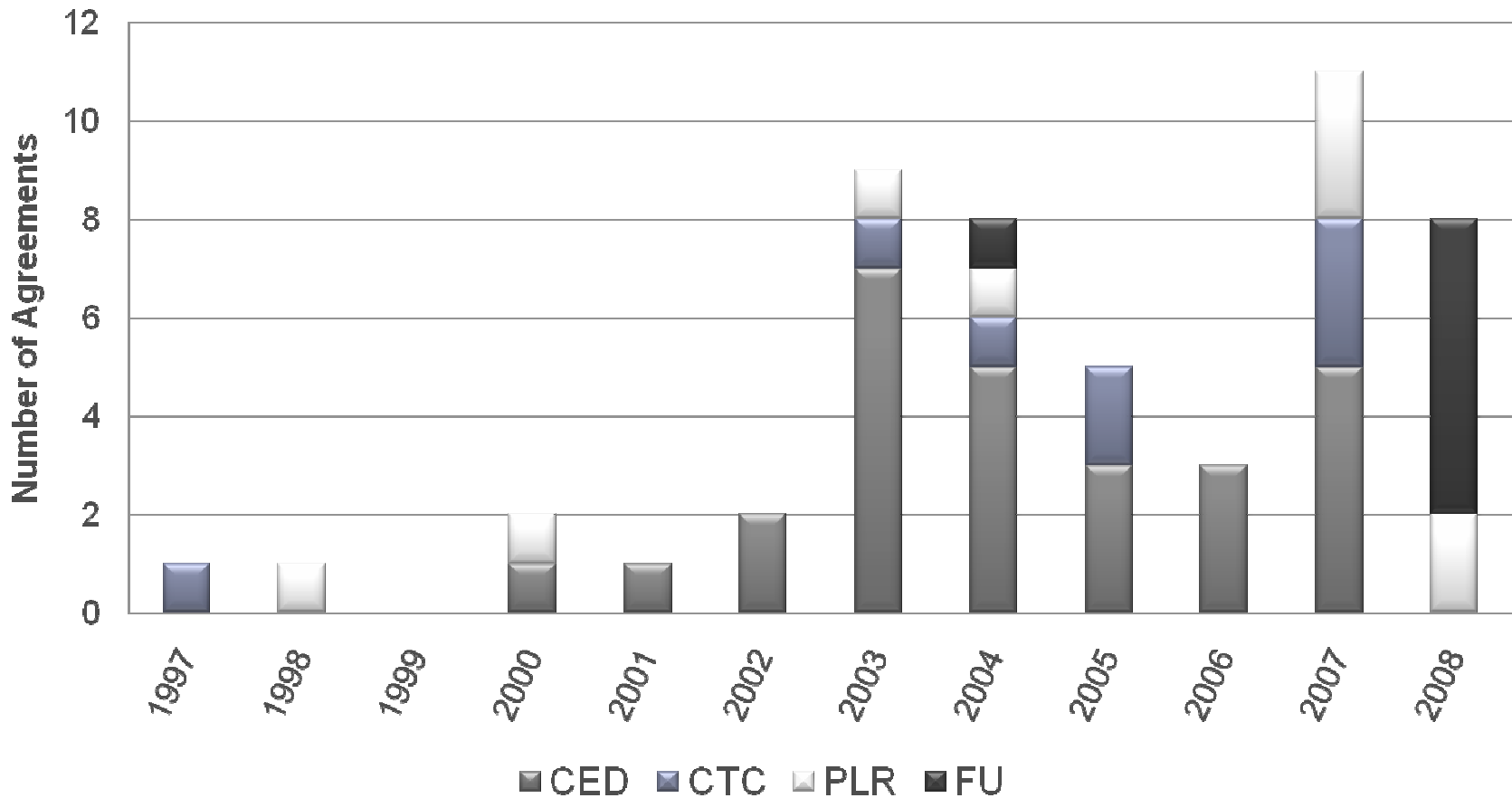


- 'Risk sharing' schemes are though growing for pharmaceuticals across Europe to help achieve two major aims as resource pressures grow. These include:
 - Means by which payers can regulate their budgets especially where limited demand side measures to control utilisation, e.g. Price: Volume agreements
 - Mechanisms by which pharmaceutical companies can enhance reimbursement/ funding for new drugs without cutting list prices, e.g. 'free drug' and 'outcome guarantee' schemes to improve the value proposition
- However, there are concerns with definitions as many different terms have been and are still being used
- In addition, scarcity of published data regarding the impact and outcome of current schemes to provide future guidance



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Growth in Risk Sharing Schemes – Sullivan 2009

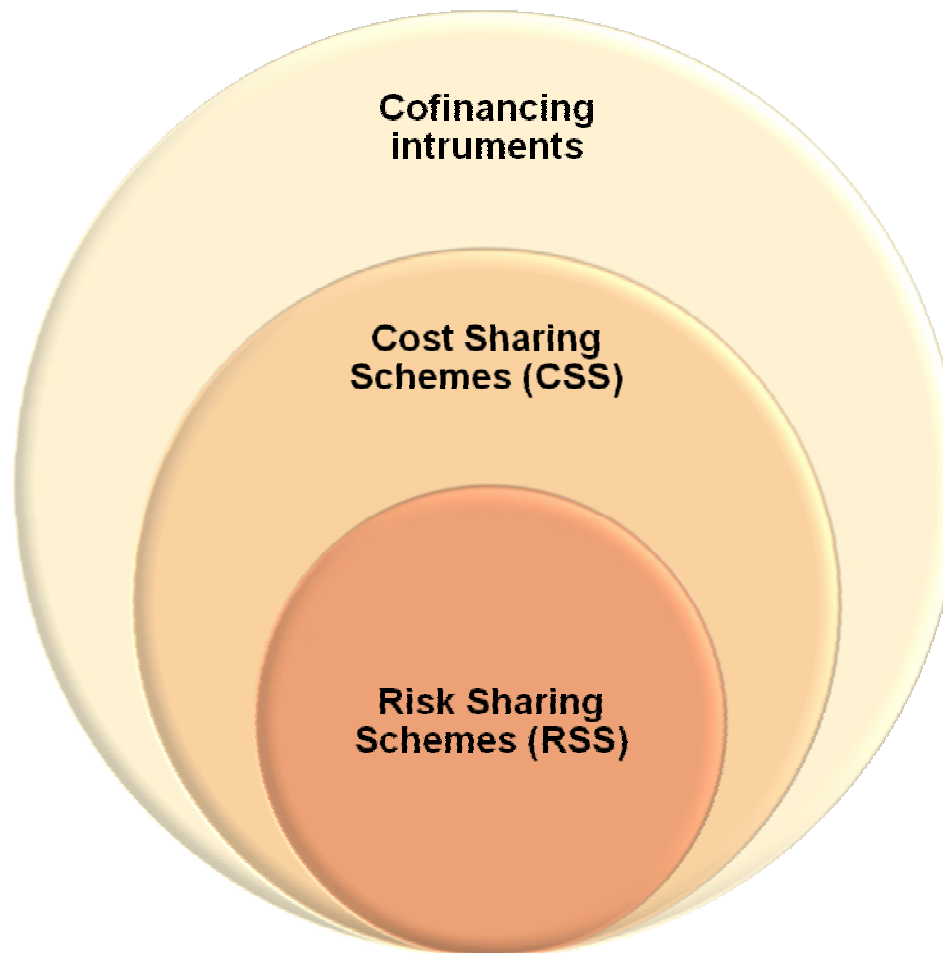


CED: Coverage with evidence development; **CTC:** Conditional treatment continuation;
PLR: Performance linked reimbursement; **FU:** Financial or utilization based agreements



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Many different schemes and terms exist





- We recently defined 'risk sharing' based on logic as:

'Risk sharing schemes for pharmaceuticals should be considered as agreements concluded by payers and pharmaceutical companies to diminish the impact on the payer's budget of new and existing medicines brought about by either the uncertainty of the value of the medicine and/ or the need to work within finite budgets'

- The agreements lie in setting the scope for such schemes and realising the mutual obligations by both parties – 'the risk'. The 'risk' varies by the situation and can include expenditure higher than agreed or health gain from a new product lower in practice



- All risk sharing schemes should have a common denominator
- What differentiates them is the nature of the risk, i.e. 'a probable situation in the future'
- Using this definition, we believe the various schemes can be subdivided into:
 - Financial/financial-based models
 - Outcome/performance-based models
- We recognise though that these definitions are used separately. In addition, outcome schemes are generally include financial aspects. However, we were looking for a common definition based on logic



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- Financial/financial-based models include:
 - Price: volume agreements (PVAs) for both new and existing drugs
 - These typically include pay back/ rebate mechanisms if volumes and/ or expenditure exceed agreed limits for the drug, class, or overall pharmaceutical expenditure
 - Prevalent where currently limited demand side measures such as France and Italy as well as some Central and Eastern European countries
 - Patient access schemes involving free or discounted drugs
 - Price cap schemes – whereby companies will cover the additional costs themselves above agreed limits. This includes both patients and payers in the US



- Performance based or outcome models include:
 - 'No cure, no pay' schemes including rebates if drugs fail to produce desired outcomes
 - Drugs provided free until their effectiveness is demonstrated in reality
 - Prices modulated if new drugs do not produce the desired patient benefits (health gain) in reality



Country	Examples of PVA financial based schemes
Australia	<ul style="list-style-type: none"> ▪ Two principal schemes exist - PVAs with price reductions if sales exclude pre-agreed volumes as well as rebate arrangements if costs exceed a subsidised cap or threshold ▪ In addition, pricing arrangements for Section 100 drugs (specialist drugs for hospitals or other similar facilities)
Estonia	<ul style="list-style-type: none"> ▪ Annual price: volume agreements are mandatory for all pharmaceuticals in the positive list ▪ This includes the rationale supporting the figures ▪ Rebates and/ or price reductions if expenditure exceeded
France	<ul style="list-style-type: none"> ▪ Contracts are signed annually (some exceptions) taking account dosing and utilisation of single drugs as well as classes, with compensation if costs exceeded. Orphan drugs now included ▪ Rebates in 2004 were €670mn – 3% of total pharmaceutical expenditure. €260mn in 2008
Italy	<ul style="list-style-type: none"> ▪ Payback schemes exist where pharmaceutical expenditure exceeds 14% in ambulatory care and 2.4% in hospitals ▪ Rebates amounted to €773mn in 2005



- There are pricing arrangements for Section 100 drugs in Australia whereby companies typically provide free drugs to lower the cost per unit; alternatively provide an agreed percentage discount to Medicare Australia. The objective is presumed to be enhancing reimbursement/ funding of new drugs; however limited details in practice

Examples include:

- Abacavir – the Pharmaceutical Benefit Scheme would only pay for 2 packs for every 3 supplied
- Cirone progesterone gel – Listing was achieved with the help of a 49.5% discount
- Deferasirox – a 20% discount was applied to achieve reimbursement

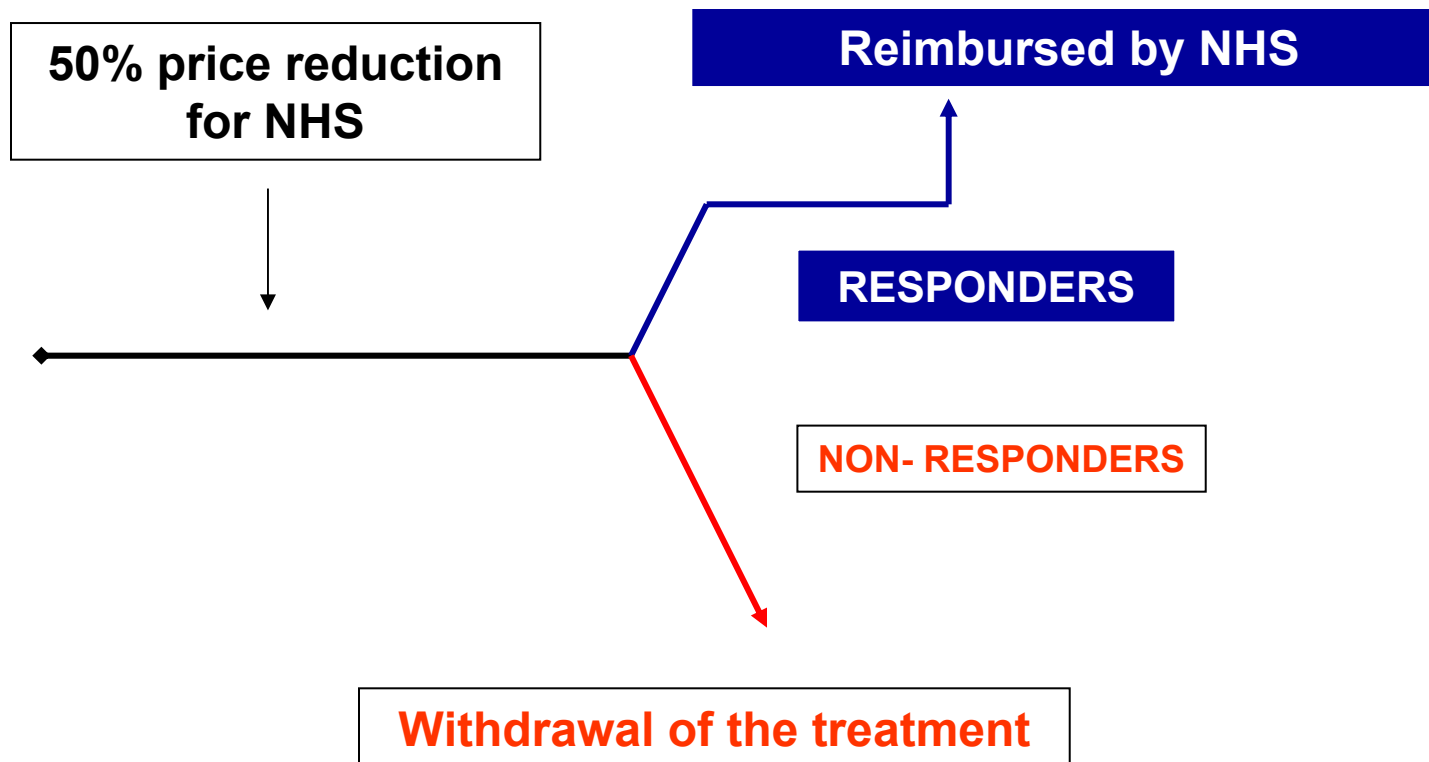


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Country	Examples of patient access schemes
Italy	<ul style="list-style-type: none"> ▪ Costs of bevacizumab in approved cancers can not exceed €25,941 per patient per year ▪ This is in addition to other schemes to reduce costs for bevacizumab and other anti-cancer drugs in Italy
England and Wales	<ul style="list-style-type: none"> ▪ Under the RANIBIZUMAB Reimbursement Scheme additional costs of injections above 14/ patient reimbursed by the company either as free drug or a credit note ▪ Discounts given for TARCEVA to ensure similar costs to docetaxel for patients with Non Small Cell lung cancer ▪ Sunitinib for patients with metastatic renal cell carcinoma - the first treatment cycle (6-weeks costing an average of GB£3139/ patient) is provided free via a patient access programme ▪ Sorafenib for metastatic renal cell carcinoma - the first pack (200mg x 112 tablets) provided free by the manufacturer equating to £2980.47p excluding VAT



Other patient access/ cost sharing schemes in Italy include new biological drugs – especially new cancer drugs





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Examples of Cost Sharing Schemes in Italy

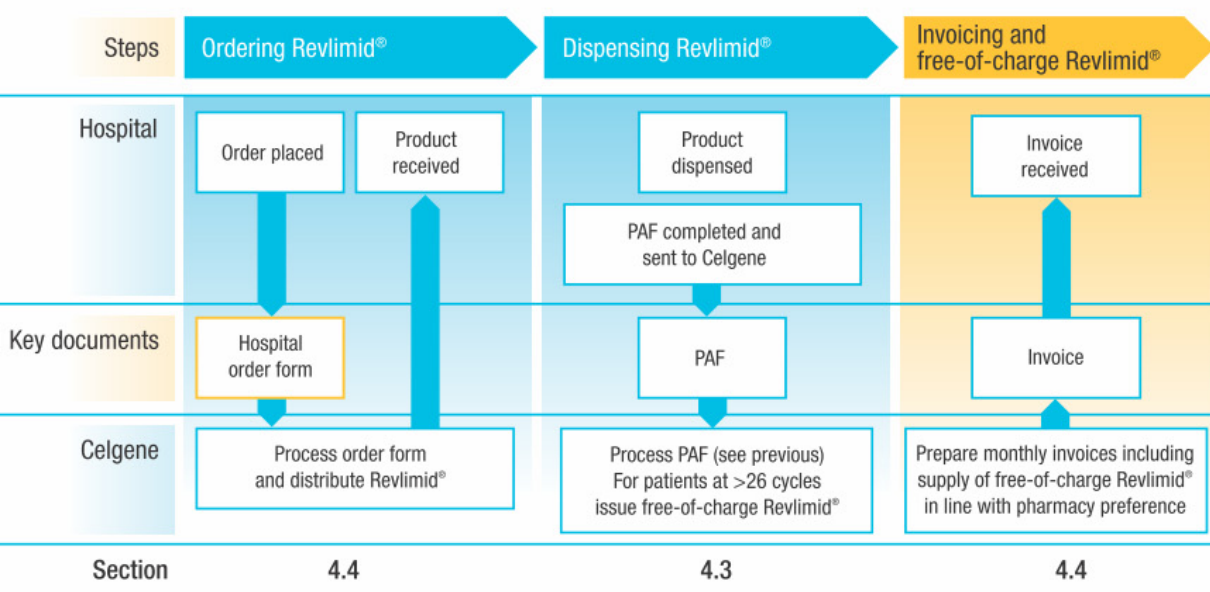
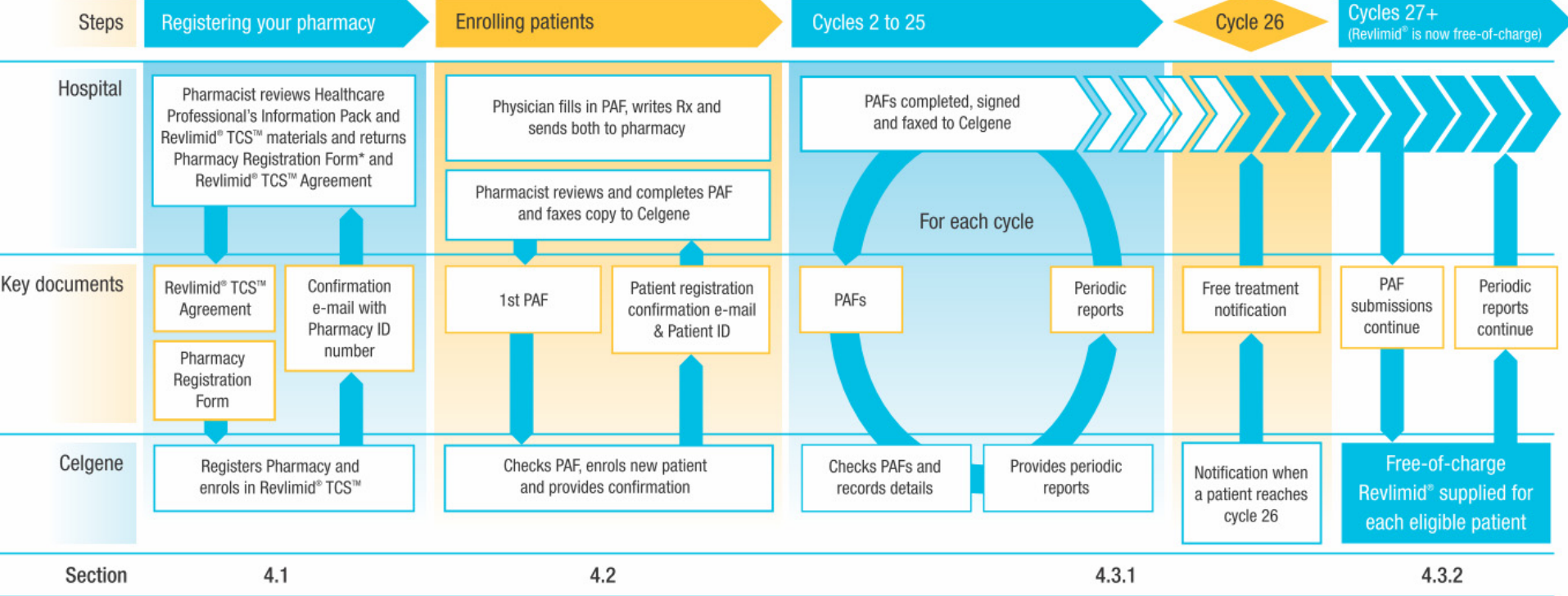
ERLOTINIB	NSCLC after failure of at least one prior chemotherapy regimen	COST SHARING
SUNITINIB	Metastatic/advanced renal cell carcinoma (first and second line treatment)	COST SHARING
SORAFENIB	Advanced renal cell carcinoma	COST SHARING
BEVACIZUMAB	Metastatic carcinoma of the colon or rectum; First-line treatment of patients with metastatic breast cancer; First-line treatment of patients with unresectable advanced metastatic or recurrent non-small cell lung cancer; First line treatment of patients with advanced and/or metastatic renal cell cancer	COST SHARING AND DOSE CAPPING



- Additional examples of patient access (cost sharing) schemes in the UK include the recent scheme for certolizumab pegol (a recombinant, humanised antibody Fab' fragment against tumour necrosis factor alpha conjugated to polyethylene glycol)
- Approved in combination with methotrexate for the treatment of moderate to severe rheumatoid arthritis in adult patients with inadequate response to DMARDs
- Certolizumab pegol can be given as monotherapy when intolerance to methotrexate or when continued treatment with methotrexate is inappropriate



- The NICE Patient Access Scheme is designed to facilitate the access of certolizumab pegol to all eligible NHS patients
- Under the scheme, the Company covers the costs of the first 12 weeks of treatment for all eligible patients, i.e. equating to 10 free doses/ patient. It is managed by a third party with special arrangements for hospitals if they initiate treatment
- The 12 week decision point was driven by the clinical evidence suggesting that the majority of RA patients will respond in the first 12 weeks of treatment. Consequently by covering costs of the first 12 weeks, clinicians have the option to investigate an alternative treatment if needed without initially incurring NHS expenditure



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Benefits with financial-based schemes

- Enhances the opportunities for reimbursement as well as for payers to work within defined budgets
- Shifts cost/ usage considerations to pharmaceutical companies – essential where concerns of excessive utilisation and limited demand side measures in practice
- Limits 'off label' usage/ indication creep in practice – especially important for expensive biological drugs and new orphan drugs

Concerns with financial-based schemes

- The 'first' patients in PVA schemes may not always be the most appropriate
- The schemes may not always factor in issues such as compliance
- Pharmaceutical companies may benefit from early access of 'unproven' technologies
- Can be complex to administer reducing savings in reality
- Potentially issues of patient confidentiality and follow up, e.g. dose capping schemes



Country	Examples of performance based/ outcome based schemes
<p>Canada</p>	<ul style="list-style-type: none"> ▪ Sandoz promised to reimburse key stakeholders where patients with treatment-resistant schizophrenia discontinued clozapine within six months (addressing cost concerns) ▪ Merck-Frost offered to reimburse the full cost if patients prescribed finasteride subsequently required surgery for BPH after one full year of medical therapy ▪ Sanofi-Aventis agreed to reimburse cost of docetaxel if agreed responder levels were not reached due to concerns with efficacy and costs. The programme lasted six months facilitating formulary listing
<p>Denmark</p>	<ul style="list-style-type: none"> ▪ A population based 'no cure, no pay' strategy for valsartan to lower BP was initiated to enhance market share ▪ Money back initiative for nicotine chewing gum if patients do not like the taste of any of the four flavours on offer ▪ 'No play; no pay' schemes for drugs for erectile dysfunction



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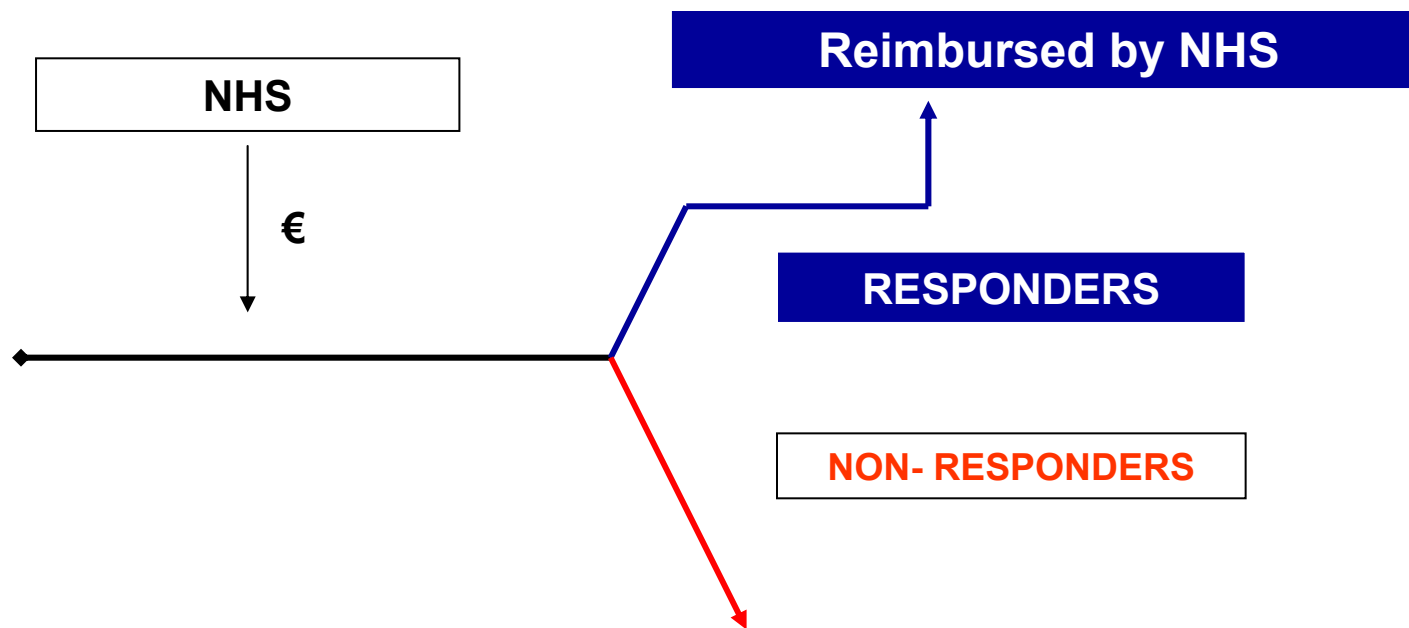
Country	Examples of performance based/ outcome based schemes (continued)
Italy	<p><i>CRONOS scheme for Alzheimer drugs</i></p> <ul style="list-style-type: none">▪ Initially the acetyl cholinesterase inhibitors were 'C' classification in Italy, i.e. 100% co-payment▪ However, under the CRONOS scheme, companies provided acetyl cholinesterase inhibitors such as donepezil free of charge to specialist clinics for the first four months of treatment▪ The NHS subsequently covered drug costs in responders, with patient outcomes recorded▪ This observational study, which demonstrated health gain in patients with mild to moderate AD, resulted in the NHS subsequently funding these drugs ('A' classification) provided patients were treated in specialist outpatients (NB No quality checks though on completed forms)



Country	Examples of performance based/ outcome based schemes (continued)
Italy	<p><i>Registries to monitor prescribing and therapeutic value in practice</i></p> <ul style="list-style-type: none">▪ Registries have been initiated in Italy to monitor prescribing of new biological drugs including those for cancer against licensed indications (as part of patient access schemes – earlier) as well as monitor their therapeutic value in practice▪ Existing outcome schemes include panitumumab and cetuximab (discounted prices) as well as cetuximab, lapatinib, sorafenib, ilenaldormibe and nelarabine (payment by results/ outcome schemes)▪ Overall over 43,000 Italian patients had been included in the registries for new cancer medicines in the various schemes up to Oct 2009



Outcome schemes in Italy for new biological drugs – especially new cancer drugs



Withdrawal of the treatment

Previous treatment paid for by the Pharmaceutical Company (most) or discounted price (minority). All patients monitored via central registries to help ensure all monies for non-responders paid back to the NHS



Country	Examples of performance based/ outcome based schemes (continued)
<p>UK – England and Wales</p>	<p><i>Bortezomib for multiple myeloma</i></p> <ul style="list-style-type: none"> ▪ Scheme based on a 50% reduction in serum paraprotein levels by the fourth cycle. NHS will fund treatment in responders with the cost/ QALY reduced to £20,700/ QALY. J & J will refund drug costs if a 50% reduction in levels not achieved ▪ Prices remain at the launch price although discounts given ▪ Concerns though whether M-protein reliable surrogate and 10-15% of patients have no measurable levels <p><i>Omalizumab for severe persistent allergic asthma</i></p> <ul style="list-style-type: none"> ▪ Manufacturer agreed to refund the cost of additional drug, as free drug, in patients who fail to respond by 16 weeks



- However, the high administrative burden, lack of communication, and concerns with passing on savings have all been highlighted as key issues with the Bortezomib and similar schemes in the UK
- Recent research showed:
 - ❑ 73% of hospitals reported they did not have the capacity to manage current schemes - especially if hospital personnel have to spend valuable time manually tracking patients, retrospectively adjusting stock control systems and ensuring necessary financial systems are in place to fully realise any savings
 - ❑ A need for greater flexibility around the time limits for processing claims
 - ❑ A need for good communication between key stakeholder groups, e.g. for bortezomib every missed claim results in a loss of GB£12,000
 - ❑ The need to ensure savings are passed back to the payers – this is not happening in 47% of hospitals



Country	Examples of performance based/ outcome based schemes (continued)
<p>UK – England and Wales</p>	<p><i>Beta interferon for multiple sclerosis</i></p> <ul style="list-style-type: none"> ▪ NICE initially rejected funding for the β interferons in MS on clinical and cost-effectiveness grounds with a cost/ QALY of £42,000 to £98,000 ▪ Under the proposed scheme, patients would be followed for over 10 years with prices reduced or refunds if the cost/ QALY was over £36,000/ QALY in reality ▪ Scheme heavily criticised as unscientific and impractical <p><i>Atorvastatin for CHD prevention</i></p> <ul style="list-style-type: none"> ▪ The pharmaceutical company agreed to repay wasted resources if atorvastatin failed to reduce LDL-C levels to agreed targets when properly titrated ▪ No refunds were given in practice as all properly titrated patients reached target lipid levels helped by the recruitment of two nurses (paid for by the company) ▪ GP and patient participation was helped by CHD being a high priority disease area. However, problems once generic simvastatin became available



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Criticisms of β interferon risk sharing scheme in the UK

- Model
 - Flaws in the actual model due to difficulties in fully mapping out the quality of life and natural history of MS to the trial outcomes which were based on changes in EDSS scores (Expanded Disability Status Score)
 - Concerns that the model was heavily influenced by assumptions about future discounting and did not account for example for the cost of azathioprine
 - The model did not appear to fully account for patients discontinuing treatment early because of side-effects
- Length of follow-up
 - Concerns that within ten years the β interferons and glatiramer acetate may have been supplanted by newer drugs reducing the whole rationale behind the scheme
- Funding and administration support
 - Primary Care Trusts generally did not receive any additional funding to cover the cost of these drugs
 - Hospitals also did not receive additional funding for more extensive follow-up consultations and for completing the necessary forms reducing their involvement in practice
 - Concerns generally with the necessary infrastructure required including specialist nurses, and where the costs of the additional administrative burden would come from



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Benefits of performance based/ outcome based schemes

- Payers only fund treatments that produce desired health gain
- Treatments can be targeted to those patients where health gain is greatest (encourages development of biomarkers)
- Payers can monitor usage in practice against agreements, as well as monitor safety in practice especially given the selective nature of Phase III clinical trials and possible safety concerns with some new drugs
- Enhances the chances of successful reimbursement and funding

Concerns with performance based/ outcome based schemes

- Whether the objective is fully explicit and transparent, and the level of evidence sufficient to make robust decisions
- Who will end up funding registries/ databases in reality, and whether these can be introduced in practice with current regulations/ staff
- Length of follow-up – impacting especially on issues such capacity and compliance in practice
- General administration burden in practice and whether sufficient staff to monitor all stages (capacity issues) ensuring rebates
- Whether the system can cope with time scales for refunds, e.g. time between monitoring disease progression and the next physician visit to stop therapy
- Potentially accelerating the uptake of new medicines in practice
- Whether refunds/ rebates are passed back to the payers in reality – especially within DRG systems



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- A number of issues need to be considered by key stakeholder groups when appraising risk sharing schemes. These include:
 - Appropriateness for the situation/ circumstances, e.g. Containing utilisation in practice where currently limited demand side measures to enhance reimbursement
 - Whether the objective(s) of the scheme and scope are explicit and transparent
 - Openness where appropriate, i.e. similar to the contracting process for hospital drugs
 - Whether the new drug is novel in a high priority disease area backed up by good transitional science
 - The economics and outcomes, e.g. whether the new drug could have a substantial beneficial impact on service delivery and/ or safety but difficult to prove this in Phase III trials
 - Time scales – overall and for specific situations (outcome schemes)
 - The likely administration costs/ burden
 - Whether health services can monitor outcomes in practice via patient registries, who funds these and who owns the data



- Overall, Health Authorities and Health Insurance Agencies should be highly critical of risk sharing schemes where:
 - Effective and low cost standards already exist
 - Health authorities will end up funding a substantial proportion of a new drug's development costs without payment
 - Patient compliance is important but not been fully addressed
 - There will be a high administrative burden – but this has not been considered/ factored in
 - Ethical considerations have not been fully addressed
 - Insufficient competent staff as well as IT support
 - Provisional reimbursement schemes are proposed as these could encourage 'over' prescribing of new expensive drugs to accelerate their assessment, e.g. Italy (one option could be to only reimburse drugs at the cost of current treatments until proven)



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Conditional reimbursement scheme in Italy for new drugs for T2DM and Angina

NEW MEDICINES with:

- **A new mechanism of action**
- **Marketing Authorisation based on non-inferiority trials to accelerate access. However, the potential for an innovative medicine**



CONDITIONAL REIMBURSEMENT MECHANISM

The medicine is fully reimbursed for a limited period of time, and under specific conditions, waiting to be re-evaluated



Conditional reimbursement scheme in Italy for new drugs for T2DM and Angina

Main Objectives

- To evaluate the utilisation of new drugs in clinical practice
- To collect epidemiologic data
- To gain data on the effectiveness / safety of the new drug in clinical practice for the re-evaluation

Description

- The time period AIFA (Reimbursement Agency) reimburses and monitors the drug (considered as potential innovation) is defined and agreed before initiation
- Potential novel treatments must only be initiated in specialist centres selected by the Italian Regions. In addition, all patients must be entered onto databases



- Key criteria to enhance the chance of successful 'risk sharing' arrangements from a 'payer' perspective include:
 - ❑ The objectives and scope are explicit and transparent
 - ❑ The new drug is:
 - A novel treatment with envisaged health gain
 - Few effective treatments currently available
 - With/ without long term safety concerns
 - ❑ Translational science suggests good effectiveness and delaying treatment may not be in key stakeholders' interest
 - ❑ The likely health gain can be determined within a relatively short time frame with proven biomarkers
 - ❑ Patient access schemes can appreciably lower health service costs having factored in all administrative costs especially processes to claim refunds/ rebates
 - ❑ Price: volume schemes enable access to new cost-effective treatments whilst at the same time controlling usage in practice

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Thank You

Any Questions!

godman@ marionegri.it; Brian.Godman@ ki.se;
mail@briangodman.co.uk