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ASSESSING THE REGULATORY REVIEW PROCESS IN EMERGING MARKETS Key milestones, target times, and quality of decision making in the assessment and registration process

QUESTIONNAIRE

[Country]

August, 2019

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Glossary and abbreviations

The Centre for Innovation in Regulatory Science (CIRS)

CIRS - The Centre for Innovation in Regulatory Science Limited - is a neutral, independently managed UK-based subsidiary company, forming part of Clarivate Analytics (UK) Limited. CIRS' mission is to maintain a leadership role in identifying and applying scientific principles for the purpose of advancing regulatory and HTA policies and processes. CIRS provides an international forum for industry, regulators, HTA and other healthcare stakeholders to meet, debate and develop regulatory and reimbursement policy through the innovative application of regulatory science and to facilitate access to medical products through these activities. This is CIRS' purpose. CIRS is operated solely for the promotion of its purpose. The organisation has its own dedicated management and advisory boards, and its funding is derived from membership dues, related activities, special projects and grants.

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Confidentiality

CIRS recognises that much of these data may be highly sensitive. CIRS has more than 20 years of experience in handling similar data provided by agencies regarding individual products in regulatory review. All information collected from individual agencies will be kept strictly confidential. No data that will identify an individual agency will be reported or made available to any third party. External reports or presentations of the data will include only blinded results and any appropriate analytical interpretations.

ASSESSING THE REGULATORY REVIEW PROCESS IN EMERGING MARKETS Review of key milestones, target times and quality of decision-making in the assessment and registration process

BACKGROUND

This questionnaire supports an on-going programme by CIRS, focusing on the regulation of new medicines in emerging markets, and looking at how regulatory agencies build quality into their review process.

The first phase was initiated in January 2004 to assess the regulatory environment in some 30 countries, using comparative data, at the country and regional level, to identify the key issues for improving review practices and making new medicines available in an efficient and timely manner. Some of these, for example, the timing and use of the Certificate of a Pharmaceutical Product (CPP) and the length of the review process, were analysed in detail. This project highlighted the need to understand more about the different steps in the review process and the way in which these affect the overall timeline. Regulatory authorities also showed an interest in having a greater understanding of how agencies are building quality into the review process.

Through this on-going programme, CIRS maps the key milestones and associated activities, for each participating agency, for new marketing applications, and to identify the processes and procedures associated with the implementation of Good Review Practices (GRevP) that help build quality into the review process. This provides a platform to enable information sharing across agencies.

This questionnaire has been designed to collate information in a single place; agencies may have collected some of these data for other assessment (benchmarking) projects. However, this project has several unique aspects:

- It collects all the key information in a single document from which a consolidated Country Report will be created;
- It allows the metrics that are collected here and in the future to be related to the PROCESS that the agency uses thereby allowing for a more qualified assessment;
- It is part of a global programme called Optimising Efficiencies in Regulatory Agencies (OpERA), coordinated by CIRS on behalf of regulatory agencies around the world. The milestones and questions have been carefully crafted to be relevant to any agency large or small, mature or maturing to provide relevant data that can be used for internal purposes or as applicable, for agency-to-agency comparisons. For example, see Emel Mashaki Ceyhan et al: The Turkish Medicines and Medical Devices Agency: Comparison of Its Registration Process with Australia, Canada, Saudi Arabia, and Singapore. Frontier's in Pharmacology January 2018, Volume 9, Article 9.

OBJECTIVES

The objectives of this on-going programme are to:

- Identify the key milestones and target times for each agency and the main activities between milestones;
- Identify the model(s) of the review which is being undertaken by each agency;
- Identify opportunities for the exchange of better practices amongst regulatory authorities;
- Assess how agencies are building quality into the assessment and registration processes.

OUTPUT

Participating agencies will receive a Country Report derived from the data provided in this Questionnaire, with which they can compare their regulatory procedures with those of peer agencies across regions. This includes an analysis of where time is spent in the review process.

The outcome allows an analysis of the quality measures that are in place for a certain type of review, and provides a baseline for subsequent comparative studies across agencies to establish best practices.

ABOUT THE QUESTIONNAIRE

The attached questionnaire is divided into four sections:

- **Part 1: Organisation of the agency.** The **Introduction** to the questionnaire asks the agency to provide current information on its structure, organisation and resources.
- Part 2: Types of review models: Explores review model(s) for the scientific assessment of medicines in terms of the extent to which data is assessed in detail by the agency, and how the agency might rely on the results of assessments and reviews carried out elsewhere.
- Part 3: Key milestones in the review process. This part of the questionnaire is based on the General Model, giving a process map and milestones, that has been developed from studying procedures followed in 'established' and 'emerging' regulatory agencies. It captures the main steps in the review and approval process and identifies key 'milestone' dates in the process. This allows for the analysis of timelines.
- Part 4: Good Review Practices (GRevP): Building quality into the regulatory process looks at the activities that contribute to those measures that have been adopted to improve consistency, transparency, timeliness, and competency in the review processes.
- **Part 5: Quality Decision-Making Processes.** This part of the questionnaire explores to the quality of the decision-making process and whether or not the agency has measures in place to ensure that good decisions are made around the data during the registration process.

Where appropriate, additional information may be obtained during face-to-face agency-CIRS interactions.

Focus of the Questionnaire

This questionnaire is intended, primarily, to document procedures and practices that relate to medicines that are the subject of **major** applications; i.e., new active substances and major line extensions.

New Active Substance

A new chemical, biological, or pharmaceutical active substance including:

- a chemical, biological, or radiopharmaceutical substance not previously authorised as a medicinal product;
- an isomer, mixture of isomers, a complex or derivative or salt of a chemical substance not previously authorised as a medicinal product, but differing in properties regarding safety and efficacy from that chemical substance previously authorised;
- a biological substance previously authorised as a medicinal product, but differing in molecular structure, nature of the source material or manufacturing process;
- a radiopharmaceutical substance which is radio nucleotide, or a ligand not previously authorised as a medicinal product, or the coupling mechanism to link the molecule and the radio nucleotide has not been previously authorised.

Major line extension

A major line extension is a change to an authorised Medicinal Product that is sufficiently great that it cannot be considered as a simple variation to the original product, but requires a new product authorisation. Such changes include major new therapeutic indications or new disease states, extension to new patient populations (e.g., paediatrics), a new route of administration or a novel drug delivery system.

PART 1. ORGANISATION OF THE AGENCY

As background to the discussions about your agency, its practices and procedures it would be helpful to have the following basic information on its structure and the way it is organized:

Title of the Agency/Division responsible for the regulation of medicinal products for human use:

If this is part of a parent agency with a wider remit (e.g., food and drugs) please give the title:

Abou	nt the agency										
1.1	Indicate which of the following best describes t	this a	agenc _j	y:							
	Autonomous agency, independent from the Health Ministry administration										
	Operates within the administrative structure of	f the	Health	า Mir	nistry						
Date	e of establishment of the current agency:										
Scop	e of Activities										
1.2	Please indicate the scope of responsibility of the	he a	gency:	:							
	Medicinal products for human use			_	YES	[NO			
	Medicinal products for veterinary use Medical devices and <i>in vitro</i> diagnostics		[<u> </u>	YES YES]		NO NO			
1.3	Indicate the main activities that are covered by	v the	ageno	∵. ∵	IES	ı		NO			
	·	,]	•	•	ial auth	orisa	itions				
	Post-marketing surveillance		Regu	latio	n of ad	vertis	sing				
	Laboratory analysis of samples		Price	reg	ulation						
	Other: Site inspections (site visits)										
Budg	et / Funding										
Pleas	se indicate whether the following data:										
	are in the public domain										
	should be treated as confidential										
1.4	Please provide the following information on the regulation of medicinal products for human use		ency b	udg	et for th	те					
			cal cu ease s				US	\$			
	Total annual budget										
	Year for which data are given					ĺ					
	If the budget is sub-divided according to diff	ferei	nt acti	vitie	s, plea	ıse s	pecif	y:			

1.4	Please provide the foll regulation of medicinal				cy budge	et for the			
	Clinical trial authorisa	tions							
	Marketing authorisation	ons							
	Pharmacovigilance								
	Other post-marketing	controls							
	Other activities (Pleas	e specify):							
Sour	ces of funding								
1.5	Please provide the foll	owing information	on in relat	ion to	the way	the age	ncy is	funded:	
Fun	ded entirely by the gover	nment			YES		NO		
Self	-funded entirely from fee	5			YES		NO		
	ially funded from differen	t sources (pleas	se give	% Go	vernme	nt	% F	ees	
prop	portions of total budget)			% Other (please specify)					
Pleas for hi 1.6 The state of	se w team se note that the following uman use. Please provide informational staff in the agency Total number of reviewers narketing authorisations/ Number of reviewers for a suthorisations/ product lice products Please indicate the product of the note of the product of the note	ation on staff numbers for applications for applications for nences or synthe	mbers: s for s marketing etic and		nbers of				
assi	igned to the review and a	ssessment of m	edicinal p	produc	cts:				
			ber empl				ree/ex	. ,	
		Total	with Phi PharmD	-	Degi	Masters ee		Other	
• F	Physicians								
• 5	Statisticians								
	Pharmacists								
• (Other Scientists								
• F	Project Managers								

Fees charged for review applications

1.6 Are fees charged to sponsors for the review an of applications for medicinal products for human		ES 🗆 NO
If YES , please provide the following information:		
Marketing Authorisation Application fee for:	Local currency (please specify)	US\$ (rounded)
□ New Active Substance synthesis		
☐ New Active Substance biological		
□ Established ingredient - proprietary product synthesis		
☐ Established ingredient - proprietary product biological		
☐ Generic product		
☐ Biological competitor product		
□ Variations		
☐ Major line extension		
☐ Other (Please specify)		
Does the agency charge a fee for scientific advice?		
☐YES ☐ NO If YES, please provide		

1.7 Applications received

	Numbe			
Туре	2016	2017	2018	Current backlog
New Active Substance				
Major line extension				
Generics (all)				
WHO Pre-qualified generics (if applicable)				

1.8 Applications determined

	Number of applications determined in each year						
Туре	2016	2017	2018				
New Active Substances approved							
New Active Substances refused							
Major line extensions approved							
Major line extension refused							
Generics approved							
Generics refused							
WHO Pre-qualified generics approved							
WHO Pre-qualified generics refused							

Additional documentation

To assist CIRS to better understand your organisation, please provide copies of any organisation charts that show the structure of the agency and its relationship to other regulatory bodies; e.g., medical device agency. It would also be very useful to have copies of any background papers that describe the functions, remit, and mission of the agency.

PART 2. TYPES OF REVIEW MODELS

Three basic types of scientific review have been identified. Many agencies apply a different level of data assessment to different applications, according to the type of product and/or its regulatory status with other agencies. The data assessment models for scientific review are described in section 2.1 below and further questions are set out in 2.2 to analyse the types of scientific review in more detail.

2.1 Please indicate by checking the boxes below, which descriptions fit the model(s) used by your agency in the assessment of major applications i.e., new active substances (NASs) and major line extensions as described earlier.

Data Assessment Type 1 (Verification)

This model is used to reduce duplication of effort by agreeing that the importing country will allow certain products to be marketed locally once they have been authorised by one or more recognised reference agencies, elsewhere. The main responsibility of the agency in the importing country is to 'verify' that the product intended for local sale has been duly registered as declared in the application and that the product characteristics (formulation, composition) and the prescribing information (use, dosage, precautions) for local marketing conforms to that agreed in the reference authorisation(s).

TYPE 1	Used for all major applications
Used for selected	ed applications (please specify):
Comment:	
Data requirements for Type 1	Assessments (verification)- What do you review/assess?
CPP/Public assessment	
reports/un-redacted	
assessment reports/Free	
sales certificate/etc	
Similarity to registered	
product	
Quality data	
Non-clinical data	
Clinical data	
Local benefit-risk	
assessment	

Data Assessment Type 2 (Abridged)

This model also conserves resources by not re-assessing scientific supporting data that has been reviewed and accepted elsewhere but includes an 'abridged' independent review of the product in terms of its use under local conditions. This might include a review of the pharmaceutical (CMC) data in relation to climatic conditions and distribution infrastructure and a benefit-risk assessment in relation to use in the local ethnic population, medical practice/culture and patterns of disease and nutrition.

Approval by a recognised agency elsewhere is a pre-requisite before the local authorisation can be granted but the initial application need not necessarily be delayed until formal documentation such as a Certificate of a Pharmaceutical Product (CPP) is available.

TYPE 2 Not used Comment:	Used for all major applications
Data requirements for Type 2 Asse	essments (abridged) What do you review/assess?
CPP/Public assessment reports/un-redacted assessment reports/Free sales certificate/etc	
Similarity to registered product	
Quality data	
Non-clinical data	
Clinical data	
Local benefit-risk assessment	
Data Assessment Type 3 (Full)	
clinical) for a major application. A Typnot been approved elsewhere but, in	d evaluation of the supporting scientific data (quality, pre-clinical, be 3 assessment could be carried out on a new application that has practice, legal requirements may dictate that the product must be fore the local authorisation can be finalised.
☐ Full review cond	☐ Used for all major applications ollowing conditions (please specify): ucted but product must still be authorised by a by prior to final authorisation
Data requirements for Type 3 Asse	essments (full) What do you review/assess?
CPP/Public assessment reports/un-redacted assessment reports/Free sales certificate/etc	
Similarity to registered product	
Quality data	
Non-clinical data	
Clinical data	
Local benefit-risk assessment	
If your agency has recognised 'refer 1 and 2 reviews) please list the count	rence agencies' (as may be used for reliance or recognition in Type tries/agencies/authorities:

PRIORITY/FAST TRACK PRODUCTS
Does your company have available:
☐ A priority review track
☐ A fast track (if different from priority)

2.2 Data requirements and assessment

	Type 1	Type 2	Type 3	Priority/fast track products
Evidence of authorisation by ot	her authorities			
Requirements for a CPP as part of the review	 with application before authorisation not essential	 with application before authorisation not essential	 □ With the application and before local authorisation □ not essential □ If available at the time of submission 	 with application before authorisation not essential
Other documentation from the authorising agencies accepted as evidence of registration	☐ letter of authorisation ☐ copy of full authorisation ☐ Internet evidence	☐ letter of authorisation ☐ copy of full authorisation ☐ Internet evidence	☐ letter of authorisation ☐ copy of full authorisation ☐ Internet evidence ☐ None	☐ letter of authorisation ☐ copy of full authorisation ☐ Internet evidence ☐ None
Other evidence accepted				
Verification of identity between	the authorised product and the	local application		
	Type 1	Type 2	Type 3	
	Information must be: Identical Closely similar		Not applicable	
Dosage form				
Strength				

	Type 1	Type 2	Type 3	Priority/fast track products
Ingredients				
Indications and dosage				
Warnings and precaution				
Product label				
Product name				
Other (specify)				
Scientific data required to supportions does not imply that the CTD in neces		below to sections of the ICH Commo	n Technical Document (CTD) as an exa	ample of the level of detail but
Pharmaceutical quality/CMC	☐ Summary data (Mod 2.3) ☐ Summary + full stability ☐ Full data (Mod 3)	☐ Summary data (Mod 2.3) ☐ Summary + full stability ☐ Full data (Mod 3)	☐ Summary data (Mod 2.3) ☐ Summary + full stability ☐ Full data (Mod 3)	Summary data (Mod 2.3) Summary + full stability Full data (Mod 3)
Scientific data required to supp	port the application (continued)			
Non-clinical data	☐ Written summary (2.4)☐ Tabulated data (2.5)☐ Full data (Module 4)	☐ Written summary (2.4)☐ Tabulated data (2.5)☐ Full data (Module 4)	☐ Written summary (2.4)☐ Tabulated data (2.5)☐ Full data (Module 4)	☐ Written summary (2.4)☐ Tabulated data (2.5)☐ Full data (Module 4)
Clinical data	☐ Written summary (2.5) ☐ Tabulated data (2.6) ☐ Full data (Module 5)	☐ Written summary (2.5) ☐ Tabulated data (2.6) ☐ Full data (Module 5)	☐ Written summary (2.5) ☐ Tabulated data (2.6) ☐ Full data (Module 5)	☐ Written summary (2.5) ☐ Tabulated data (2.6) ☐ Full data (Module 5)
Extent of Scientific Review	The state (models o)	(odd:oo)		
Quality/CMC data	☐ Only examined if there is a query☐ 'Check list' review for	☐ Only examined if there is a query ☐ 'Check list' review for	 'Check list' review for completeness of data □ Selective review in detail	☐ Only examined if there is a query ☐ 'Check list' review for
	completeness of data Selective review in detail (e.g. stability, specification) Detailed assessment and evaluation report	completeness of data Selective review in detail (e.g. stability, specification) Detailed assessment and evaluation report	(e.g. stability, specification) Detailed assessment and evaluation report	completeness of data Selective review in detail (e.g. stability, specification) Detailed assessment and evaluation report

Type 1			1		Туре	2	Type 3			Priority/fast track products			
Comments:													
Non-clinical data	☐ ·C	Only examine a query Check list' re completene etailed asse nd evaluation	view for ss of data ssment	a 'C	query Check list' r	ess of data essment	De an	heck list' re for complet stailed asse d evaluatio ot at all	eness of data		Only examin is a query 'Check list' r for comple data Detailed assand evaluat	eview eteness of sessment	
Comments:											arra ovaraa.	он торон	
Clinical data	Only examined if there is a query 'Check list' review for completeness of data Selective review in detail (e.g. bridging studies) Detailed assessment and evaluation report			☐ Only examined if there is a query ☐ 'Check list' review for completeness of data ☐ Selective review in detail (e.g. bridging studies) ☐ Detailed assessment and evaluation report			 □ 'Check list' review for completeness of data □ Selective review in detail (e.g. bridging studies) □ Detailed assessment and evaluation report 			de	Only examing is a query Check list'r completent Selective resetail (e.g. bridgin Detailed assume and evaluate	eview for ess of data eview in g studies) essment	
Comments:	<u> </u>												
The clinical opinion takes account of:	·			nent Never	Someti	mes Always	Never	Sometir	nes Always	Neve		mes	
Differences in medical culture/practice													
Ethnic factors													
National disease patterns													
Unmet medical need													

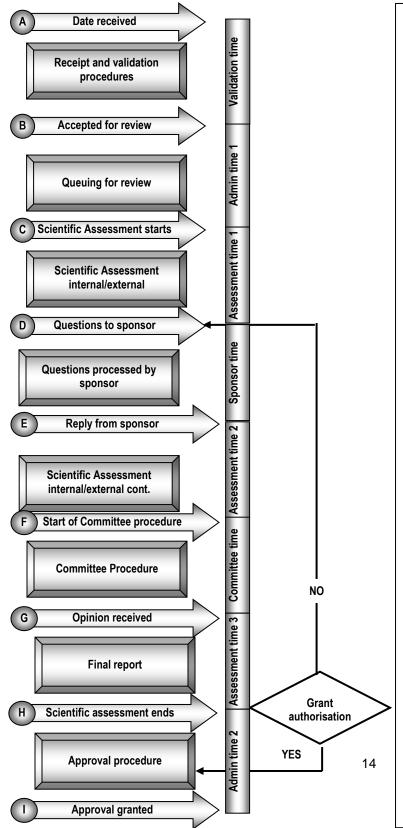
Questionnaire Template v4

		Type '	1		Type 2 Type 3		Priority/fast track products					
Additional information, not in the application:												
The agency tries to obtain:										Never	Sometin	nes
	Never	Sometin	nes Always	Never	Sometir	mes Always	Never	Sometin	nes Always	Al	ways	
Other agencies' internal assessment reports												
Reports available on the Internet (e.g., EPARS)												
General Internet search												
Other data (please specify):												

PART 3. KEY MILESTONES IN THE REVIEW PROCESS

Review Process Map and Milestones

This part of the questionnaire is based on the General Model below, giving a process map and milestones that have been developed from studying procedures followed in 'established' and 'emerging' regulatory agencies. It captures the main steps in the review and approval process and identifies key 'milestone' dates in the process for monitoring and analysing timelines.



Notes

Receipt and validation may include administrative registration (reference number) and checks on legal requirements, status of company, local agent, manufacturer etc. as well as a 'checklist' validation of the application content (e.g., technical sections, CPP status).

Queuing for review: Administrative time 1 is a measure of the 'backlog' time (if any) while valid applications wait for action to begin.

Scientific Assessment extends from milestone C to milestone H and is a measure of 'review time.' In some systems, the 'clock' stops when questions are asked and Sponsor *time* (milestone D to milestone E) can be measured and deducted from the agency review time.

Questions to sponsor may be batched and sent at one time or asked throughout the review process, in which case the *Sponsor time* is not easily measured.

In some systems, questions may only be sent to the sponsor after the end of the 'first cycle' scientific assessment (at milestone H).

Committee Procedure: Most review procedures for major applications include a step where the opinion of an expert advisory committee is sought. In this scheme, the Committee procedure is 'nested' within the Scientific Assessment but it may take place after the Agency's scientific assessment is complete.

Second cycle: If the application cannot be granted immediately, on technical grounds, it enters a second review cycle (new data point D: questions to sponsor) and a further scientific assessment is made of the additional data. The Committee Procedure may or may not need to be included in the second and subsequent review cycles.

Approval procedure: The time interval after scientific review (*Admin time 2*) while the formal authorisation is issued may be extended by pricing negotiations and finalisation of analytical and GMP checks.

Approval time is measured from milestone A to milestone I.

Review stages and milestones

This section of the questionnaire is based on the *General Model* shown on page 14.

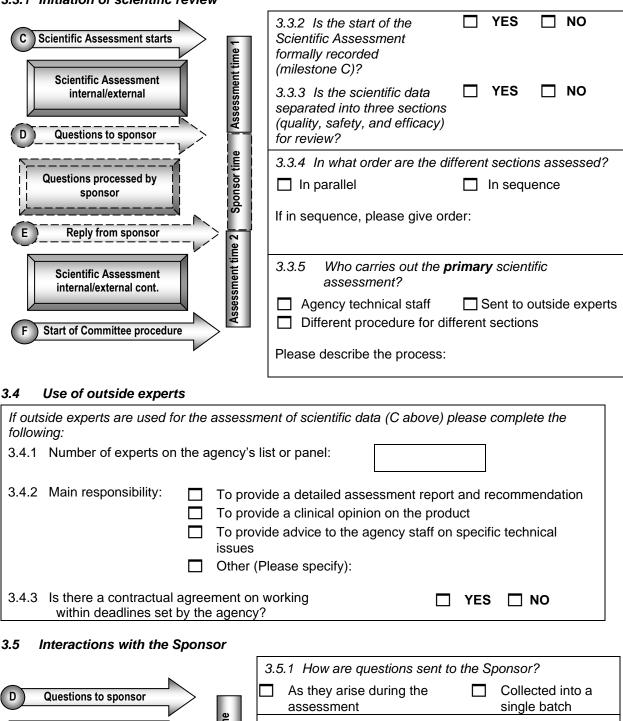
We recognise that not all systems conform to the general model and it would be very helpful if you could provide an outline of the model used by your agency. If this differs according to the **Type of data assessment** (see page 8) please provide information on the different models.

When information is given on target or actual times please indicate here v	vhethe	r these	are counted in:		
☐ Calendar days ☐ Working days					
When 'milestone' dates are recorded during the review process is the information entered into an electronic tracking/recording system?					
☐ YES, a system is in current use ☐ NO, a system is in developme	nt (ple	ase spe	ecify target date):		
NO, a manual system will be used for the foreseeable future					
3.1 Receipt and Validation Pre-submission requireme	nts				
Receipt and validation procedure 3.1.1 Are there any formal r an application is submit notification of intent to registration code etc.,? NO YES (please sp	equire itted, fo submit	or exam	nple,		
Validation					
3.1.2 Is the date of receipt (milestone A) formally recorded?		YES	□ NO		
3.1.3 Are the following administrative items checked in the pre-review v	alidati	on proc	ess?		
Legal status of applicant/local agent		YES	□ NO		
GMP status of manufacturer		YES	□ NO		
Patent/IP status of active ingredient		YES	□ NO		
Whether company has paid the correct fee		YES	□ NO		
Other:					
3.1.4 For those applications where prior authorisation elsewhere is essential (see Section 2) please answer the following questions about the Certificate of a Pharmaceutical Product (CPP): Is the inclusion of a CPP an absolute requirement before accepting the application as valid?					
☐ YES ☐ NO ☐ For some applications (please specify):	дриос	ation as	vana:		
Tes in the interest of some applications (please specify).					
If YES, must the CPP be legalised by an Embassy or Consulate?		YES	□ мо		
If NO , please indicate which of the following apply:	_ _		_		
A CPP must be provided before the authorisation is issued YES NO					
Other evidence of authorisation by other countries is accepted in place of the CPP (e.g., copy of authorisation, Internet reference)		YES	□ NO		

Comments:	
Validation (cont.)	
3.1.5 Is the application also checked for the Acceptable format (e.g. ICH CTD or local recorrect sections of scientific data (quality, so Other technical items:	equirements)
Acceptance for review/refusal to file	
3.1.6 Is the date of acceptance (milestone) 3.1.7 What happens if the application is in Refusal to file: New application must File pending: A request for the miss	complete?
What is the time limit for the applicar Comments:	
Target time for validation 3.1.8 Is there a target validation time? If YES, please specify:	☐ YES ☐ NO
3.2 Queuing/backlog B Accepted for review Queuing for review C Scientific Assessment starts	3.2.1 Which of the following applies to the queuing system for new applications? Held in queue after validation (as in the General Model) after phase 1 validation Held in queue before validation starts (milestone A) 3.2.2 What is the current queue time (approximately)? Less than 2 weeks 2-8 weeks 3-6 months 6 months-1 year
3.2.3 Are priority products taken out of turn in the queuing system? Comments:	YES, always YES, sometimes NO, all applications await their turn
3.2.4 Does the agency regard the backlog as a problem? If YES, how is this being addressed:	of applications

3.3 Scientific Assessment

3.3.1 Initiation of scientific review



	3.5.1 How are questions sent to	o trie oporisor:
D Questions to sponsor	As they arise during the assessment	Collected into a single batch
Questions processed by sponsor E Reply from sponsor	After the initial assessmen Scientific Committee (as in	nmittee has given its advice

3.5.3 Does the scientific review cease who processed by the Sponsor ('clock sto	
3.5.4 Can the sponsor time be calculated, i.e., are milestones D and E recorde	d? □ YES □ NO
3.5.5 Is the sponsor given a time limit to rep	oly?
If Yes, what time is allowed?	
Meetings	
3.5.6 Can the Sponsor hold meetings with discuss questions and queries that assessment?	
If Yes, what conditions and restrictions (if ar	ny) are applied:
3.6 Review by Scientific Committee(s)	
F Start of Committee procedure Committee file Committee file	3.6.1 Is a Committee of Superts (internal and/or external) used in the review process?
Committee Procedure	3.6.2 If YES , at which stage in the review?
G Opinion received Final report	 ☐ Responsible for the whole assessment of the dossier from the start of the review ☐ Integrated into the agency's own internal/external scientific review procedure ☐ Consulted after the agency has reviewed and reported on the scientific data ☐ Other (Please specify):
H Scientific assessment ends	
3.6.3 Are the dates at the start and end of recorded (milestones F and G)?	the Committee Review YES NO
3.6.4 Is the agency mandated to follow the recommendation?	Committee
3.6.5 Is there a time limit for the Committee	ee Procedure?
If YES , please give the target: If NO , what is the time range?	
3.6.6 Is there an additional step in the scienafter the Committee has given its op If YES , please describe briefly the work carropinion).	

If NO , the milestone G will mark the end of review time.	the scientific review for the purpos	se of calculating the
Target timelines for the review process 3.6.7 Is a target time set for the scientification. If YES please give target	ic review (milestones C to H)?	☐ YES ☐ NO
3.7 Recommendation on the Applic		
H Scientific assessment ends Approval procedure	 At the end of the Scientific Review 19) there is normally recommend. The product meets the scienti (proceed to approval procedu Further data is required before met (application enters a second 	dation that either: ific criteria for authorisation ire) or e the scientific criteria are
I Approval granted	(questions to Sponsor) orThe application should be refu General Model)	used (not shown in the
3.7.1 Responsibility for the authorisation		
 3.7.1.1 Who makes the decision that a mage th	arketing authorisation can be grant The Head of the Ag	
3.7.1.2 If Scientific Advice Committee is usused?	sed as per 3.7.1.1, what kind of do	ecision-making process is
☐ Consensus process by the Committee		
☐ Majority vote by the Committee		
☐ One individual makes the final decision	n based on the Committee recomm	nendations
Other, please specify		
3.7.2 Other criteria to be met		
3.7.2.1 Is the issue of the authorisation agreement?	dependent on a pricing	☐ YES ☐ NO
If YES, when are the pricing negotiations s	started?	
☐ At the start of the scientific review	After the end of the	scientific review
☐ After the start but before the end of the	e scientific review	
3.7.2.2 Is the issue of the authorisation de	ependent on sample analysis?	☐ YES ☐ NO
If YES , when is the analytical work started In parallel with the scientific review	? At the end of the s	scientific review

After the start, but before the end of the scientific review

3.7.2.3	Is there a separate negotiation of the product labelling/ product information after the scientific opinion is given but before the approval is issued? YES NO
Comme	ents:
3.7.2.4	Please specify any other legal/administrative matters that must be finalised before the approval can be issued:
3.7.2.5	Is the sponsor informed of a positive scientific opinion at milestone G, i.e., before the authorisation is issued?
	Approximately how long does it take from receiving a positive scientific opinion (at milestone H) to issuing an approval (milestone I)? ss than a month

3.8 Metrics on the Approval Process

It would be very helpful to have the following information on processing times for marketing authorisations that have been received and/or determined in the three years 2015, 2016, 2017

3.8.1 Actual approval times (average)

	Time from receipt of application to issue of approval					
Туре	2015	2016	2017			
New Active Substances approved						
Major line extensions approved						
Generics approved						
WHO Pre-qualified generics approved						

PART 4. GOOD REVIEW PRACTICES (GREVP) BUILDING QUALITY INTO THE REGULATORY PROCESS

Quality in the assessment and registration process is important to regulatory authorities as it ensures consistency, transparency, timeliness and competency in the review processes. Regulatory authorities are continuously developing and implementing a variety of measures to improve and achieve higher quality standards and to meet the expectations of industry and the general public.

The purpose of this section of the questionnaire is to obtain an insight into the strategies, measures and resources that agencies have in place to develop and maintain quality in their review processes.

4.1. General measures used to achieve quality

Please indicate the quality measures currently in place and, where there are none, what, if any, plans there are to introduce such measures in the foreseeable future.

Good Review Practices (GRevP): A code about the process and the documentation of review

procedures that aims to standardise and improve the overall docume predictability, consistency and high quality of reviews and review representations.	entation and ensure timeliness,
4.1.1 How does your agency define GRevP: Is it different from the	glossary? TYES NO
If different, please define here:	
Please outline the key elements that make up GRevP in your agency	r.
4.1.2 Has the agency formally or informally implemented GRevP?	☐ YES (Formally)☐ YES (Informally)☐ NO
If YES , please give the title and date of formal implementation:	
4.1.3 How has this been implemented? (Please select the appropria Guidelines Standard Operating Procedure GRevPT Other (Please specify):	ate box(s)): raining Program
4.1.4 Are these documents open and available to the public? If YES , please describe how:	☐ YES ☐ NO
4.1.5 Was the establishment of your GRevP based on other agencies or International standards? If YES, please state the name of the agency(ies)/ or internationals standards been based:	☐YES ☐NO andards on which your GRevP
4.1.6 Are you satisfied with your existing GRevP framework? ☐ Satisfied ☐ Could be improved ☐ Unsatisfied If could be improved or unsatisfied, please select the reason(s) tha ☐ System still evolving	at best describes your situation:

Requires additional training to understand and learn about Good Review Practice						
Poor acceptance/utilization by staff						
☐ Benefits of implementing GRevP are not apparent so far						
Other (please provide details):						
4.1.7 If you do not have a formal GRevP system in place are there plans to establish this within the next two years?	☐ YES	□ NO				
Internal Quality Policy: Overall intentions and direction of an organic	sation related	d to quality as				
formally expressed by top management.		, , ,				
4.1.8 Does the agency have an Internal Quality Policy?	☐ YES	□ NO				
If NO , are there plans to establish this within the next two years?	☐ YES	□ NO				
SOPs (Standard Operating Procedures) are written documents that deprocedures to be followed for a specific operation.	escribe in de	etail the routine				
4.1.9 Are there SOPs for the guidance of scientific assessors?	☐ YES	□ NO				
If NO , are there plans to establish SOPs within the next two years?	☐ YES	□ NO				
4.1.10 Are there SOPs for the advisory committee consulted	 ☐ YES	□ NO				
during the review process?	☐ NO CO	MMITTEE				
If NO , are there plans to establish SOPs within the next two years?	☐ YES	□ NO				
4.1.11 Are SOPs used for any other procedures in the regulatory	☐ YES	□ NO				
review process (e.g., validation)?						
If YES , please specify:						
Assessment Templates set out the content and format of written rep	orts on scier	ntific reviews.				
4.1.12 Are there Assessment Templates for reports	☐ YES	□ NO				
on the scientific review of an NAS?	□0					
If NO , are there plans to establish this within the next two years?	☐ YES	□ NO				
If YES , are these based on another agency's assessment template?	☐ YES	□ NO				
If YES, please specify on which agency was the assessment template	e based?					
4.1.13 Is there an SOP for completing an assessment template?	☐ YES	□ NO				
4.1.14 Select which elements from the list below are included in your agency assessment template:						
☐ Drug Substance ☐ GCP aspects						
☐ Drug Product ☐ Clinical Pharmacology (PK & PD)						
☐ Comments on label ☐ Clinical Efficacy						
Non-clinical GLP Aspects Clinical Safety						
Non-clinical Pharmacokinetic List of questions for sponsors						
Toxicology Benefit Risk Reduction						
Regulatory background (worldwide status						
on regulatory agencies) studies) Other (please specify):						
Callet (ploaded opposity).						
4.1.15 Would the agency be open to sharing their assessment template or points to consider with CIRS? ☐ YES ☐ NO						
· · · · · · · · · · · · · · · · · · ·						
4.1.16 Do you produce an assessment report (AR) following the review?	□YES □]NO				

KVEC.	
If YES:	
Is there an SOP for completing the AR?	□YES □NO
What language is the AR prepared in?	☐LOCAL LANGUAGE ☐ENGLISH
4.1.17 Do you share your AR with other regulatory authorities?	□YES □NO □SOMETIMES
Do you put your full AR on the website?	☐YES ☐NO
Do you put your abridged AR on the website?	☐ SOMETIMES ☐ YES ☐ NO ☐ SOMETIMES
Do sponsors get a copy of the full assessment report?	□YES □NO
Do sponsors have any involvement in the following in relation to AR:	
Preparation of assessment reports	□YES □NO
Comments on the assessment reports	☐YES ☐NO
Translation of assessment reports	☐YES ☐NO
Distribution of assessment reports	□YES □NO
Peer Review is an additional evaluation of an original assessment independent person or committee. Peer review can occur either du at the time of sign-off.	
4.1.18 Are external peer reviews carried out when a NAS is assessed?	☐ YES ☐ NO
If NO , are there plans to introduce these within the next two years?	☐ YES ☐ NO
4.1.19 Are internal peer reviews carried out when a NAS is assessed?	☐ YES ☐ NO
If NO , are there plans to introduce these within the next two years?	☐ YES ☐ NO
4.1.20 Are there other general procedures in place to monitor the What other tools does your agency use to build quality into the ass procedure could include: quality assurance and quality control mee channel for grievance; survey of performance from sponsors) Pleas	essment process? (e.g., Internal ting; stakeholder meeting;

4.2. Quality Management

Reasons for introducing quality measures in the agency

4.2.1	From the following list, please select the thr of quality measures:	ee m	าดเ	st important reas	sons	for the	introa	luction
	To be more efficient		Т	o minimise erro	rs			
	To ensure consistency		٦	To increase trans	spare	ency		
	To achieve stakeholder satisfaction		7	To improve com	muni	cations	in the	agency
	To improve process predictability		٦	Γο allocate the re	egula	atory res	source	es
	Other (please specify):							
Monite	oring to improve quality							
4.2.2	Which of the following activities are undertakted continuous improvement in the assessment					about		
• R	eviewing assessors' feedback and taking nece		_	•		YES	П	NO
	eviewing stakeholders' feedback (e.g. through eetings or workshops) and taking necessary a			aints,		YES		NO
	sing an internal tracking system to monitor (e.gneliness, efficiency and accuracy)	j. con	nsi	istency,		YES		NO
	arrying out internal quality audits (e.g. self-asso dings to improve the system	essm	ner	nts) and using		YES		NO
	aving external quality audits by an accredited or prove the system	ertifi	ca	ition body to		YES		NO
fe	aving a 'post approval' discussion with the spo edback on the quality of the dossier and obtair mments					YES		NO
Manag	gement responsibility for quality							
4.2.3	Does the agency have a dedicated department and/or ensuring quality in the assessment are process?					YES		NO
If YE	6, how many staff are involved?							
How often do you assess and/or ensure quality in the assessment and registration process? ☐ Annually ☐ Semi-annually ☐ Ad hoc ☐ Other (Occasionally)								
To whom does this section report (e.g., the Chief Executive Officer of the agency)?								
If NO	, is the agency thinking of setting up such a de	partr	me	ent?		YES		NO

4.3 Quality in the Review and Assessment Process

Improving the quality of applications

, , , , , , , , , , , , , , , , , , , ,							
4.3.1 Does the agency have official guidelines to assist industry in the registration of medicinal products?	☐ YES	□ NO					
If YES , how are these guidelines made available? (Please indicate all	that annly)						
	cial publications						
	•						
	stry associations	5					
Other, please specify:							
What language/s are the guidelines available in:							
Local language only English Other, please specify:							
Improving quality through interactions with applicants							
4.3.2 Does the agency provide pre-submission scientific advice to applicants?	☐ YES	□ NO					
If YES, how is the quality of that advice monitored?							
4.3.3 Is the applicant given details of technical staff that can be contacted to discuss an application during review?	☐ YES	□ NO					
4.3.4 Please indicate which of the following best describes the level of							
companies have with agency staff or outside experts during de- the agency's assessment:	velopment and di	uring					
	Development	Assessment					
Extensive formal contact (including scheduled meetings)							
Extensive informal contact (frequent telephone or email contact)	H	H					
Some formal contact (possibility of meetings)	H						
Some informal contact (possibility of telephone or email contact)	H						
None, or minimal formal contact (rare occurrences of contact, via	<u> </u>						
letter or fax)	Ш	Ш					
None, or minimal informal contact (rare telephone or email contact)							
Please comment on general policy for contact with applicants:							
Scientific Committee Procedures							
4.3.5 If your review procedure includes obtaining the advice of a scie of internal and/or external experts (as in Section 3.15.1) please		lowina:					
Name of the Committee :		· - ······ g ·					
Number of Committee members :							
How frequently does the Committee meet?							
☐ Once a week ☐ Once a month ☐ Other, please specify:							
For NAS applications and major line extensions does the Committee	review:						
☐ All applications ☐ Selected dossiers (Please specify):							
Dans the Committee manifests							
Does the Committee review:							
☐ The complete dossier ☐ Assessment reports from the reviewed	I ne complete dossier						

Shared and Joint reviews with other Regulatory Agencies outside of your country

A **shared review** is one where each participating agency takes responsibility for reviewing a separate part of the dossier. A **joint review** is one where the whole dossier is reviewed by each agency and the outcome is discussed before a decision is taken.

4.3.6 Is your agency part of any regional alignment initiatives?	☐ YES	□ NO	
If YES, please specify:			
4.3.7 Are bilateral/multilateral information sharing agreements	☐ YES	□ NO	
in place with other jurisdictions?			
If YES, what is the general nature of those agreements?			
4.3.8 Does your agency conduct shared or joint reviews with other	r regulatory a	uthorities?	
	asionally. Plo	ease state	
which authorities: which au	thorities:		
which authorities: which au NO, this has never been undertaken	thorities:		
		s 🗆 no	
NO, this has never been undertaken If YES, do you have formal measures in place to ensure consistent quality during the review?	☐ YE		
■ NO, this has never been undertaken If YES, do you have formal measures in place to ensure consistent quality during the review? If YES, please specify: If NO, do you anticipate undertaking such reviews within the next to	YE	= NO	

4.4. Training and continuing education as an element of quality

The following questions relate to training and continuing education of assessors working within the agency, including those employed on a full-time basis and those contracted for specific assessments were necessary.

4.4.1 Do you have a formal training programme for	rassessors?		
4.4.2 Which of the following methods are used for training assessors?			
☐ Induction training ☐ On job training	External coursesPost-graduate degrees		
☐ Placements and secondments in other regulatory authorities☐ External speakers invited to the agency	☐ Participation in international workshops/ conferences☐ In-house courses		
☐ Other, please specify:			
Collaboration with other agencies			
4.4.3 Does your agency seek direct assistance of agencies for development of SOPs and Guidelines.			
4.4.4 Does your agency mainly develop SOP, Guion on information published by more experience			
4.4.5 Does your agency collaborate with other age training of assessors? If YES, please give details:	ncies in the		
4.4.6 Is training tested in examination situations on	ce completed?		
4.4.7 Is completion of training courses required for advancement?	professional		

4.5 Transparency of the review process

This section examines 'transparency' in terms of the ability and willingness of the agency to assign time and resources to providing information on its activities to both the informed public (which includes health professionals) and industry.

4.5.1 What priority does your agency assign to be relationships with the public, professions and	
☐ High priority ☐ Medium priority ☐ Low p	priority
Please comment:	
4.5.2 What are the main drivers for establishing tra three incentives for assigning resources to a of the regulatory system:	
☐ Political will	☐ Public pressure
☐ Press and media attention	☐ Need to increase confidence in the system
□ Need to provide assurances on safety safeguards	☐ Better staff morale and performance
☐ Other, please specify:	
Transparency to the public The following questions explore the availability of infregulatory authorities.	ormation to the general public on the performance o
4.5.3 Please indicate which of the following information and registration of marketing applications is a	

4.5.4 How is this information made available?			
☐ Official journal/periodical publication	☐ From an official Interne	et website	
☐ On request	Other, please specify:		
Transparency to companies on the application p	rogress		
4.5.5 Are companies able to follow the progress of	their own applications?	☐ YES	□ NO
If YES, please indicate the mechanisms available t	o industry:		
☐ Electronic access to the status of applications	☐ Telephone contact		
☐ E-mail contact	☐ Other, please specify		
4.5.6 Are companies given detailed reasons for re	iection of an	☐ YES	П по
application for registration?	jeenen er un		
Facilities for providing information			
4.5.7 Is there an electronic system for registering a	nd tracking applications?	☐ YES	□ NO
If YES, please indicate whether it has the following	capabilities:		
 Tracking applications that are under review and process 	I identifying the stage in the	☐ YES	□ NO
•	vceeded		
Signalling that target review dates have been exceeded Decording the target of the cuthering area granted.		☐ YES	□ NO
Recording the terms of the authorisation once granted		☐ YES	□ NO
Archiving information on applications in a way to	nat can be searched	☐ YES	□ NO
If NO, are there plans to introduce such a system?		☐ YES	□ NO
If so, please give target date for implementation:			

5. QUALITY DECISION-MAKING PROCESSES

Regulatory agencies consider various types of information needed to carry out their assessment of new medicines, but it is not always clear how the decisions, which require human judgment and interpretation, are made around the data. According to the well-established principles of the science of decision making, any organisation that seeks to improve its productivity and consistency should also routinely measure the quality of its decision-making process. These questions aim to uncover the decision-making practices of your agency and focus on the process to approve or reject a New Drug Application.

5.1. Decision-making frameworks A Framework is a set of principles, guidelines and tools which provide a structured systematic approach to guide decision-makers in selecting, organising, understanding and summarising subjective values and judgments that form the basis of a decision, as well as communicating the evidence relevant to the decision.			
5.1.1 Does your agency have a framework in place that forms the basis of the decision to approve or reject a NDA?			
☐ Yes ☐ No If "No", please answer 5.1.2-5.1.3, if "Yes", please go to section 5.2 (next page)			
5.1.2 Why a framework is not used? (Mark all that apply) Lack of a validated framework Lack of knowledge/training on decision making in general Benefits of a framework not apparent Resource/administrative limitation Others, please specify			
5.1.3 Are there plans to adopt a framework in the next two years? ☐ Yes ☐ No ☐ Not sure			
5.1.4 Which statement best describes the nature of your framework? The framework has been formally defined and codified The framework is informal, by custom and practice (i.e. it has never been clearly agreed but over time has become the process)			
5.1.5 In your view, which Quality Decision-Making Practices have been incorporated into your agency's framework (select one in each row)?			
Practice	Practice incorporated	Practice not incorporated	If 'not incorporated' tick if you consider it relevant
Have a systematic, structured approach			
Assign clear roles and responsibilities			
3. Assign values and relative importance to decision criteria			
4. Evaluate both internal and external influences/biases			
5. Examine alternative solutions			
6. Consider uncertainty			
7. Re-evaluate as new information becomes available			
8. Perform impact analysis of the decision			
Ensure transparency and provide a record trail			
10. Effectively communicate the basis of the decision		П	П

5.2. Decision-making challenges

5.2.1 In your opinion, does your agency actively consider these subjective influences/biases in their decision making?

Subjective influences/biases	Tick if your agency has measures in place to minimise impact of this influence/bias on your agency's decision making	If yes, please describe
Action-oriented influences drive us to take action less thoughtfully than we should e.g. Excessive optimism, overconfidence, gut-feeling		
Interest influences arise in the presence of conflicting incentives and even purely emotional ones. E.g. misaligned individual incentives and attachments		
Pattern-recognition influences lead us to recognize patterns even where there are none e.g. confirmation bias to seek out information that supports a favoured decision		
Stability influences create a tendency toward inertia in the presence of uncertainty e.g. preference for the status quo in the absence of pressure to change it		
5.2.2 Does your agency provide training in the area of quality Please comment	v decision making? ☐ No	
5.2.3 Are there formal assessments in place to periodically morocesses within your agency?	neasure the quality of de	cision-making
□ Yes	□ No	
Please comment		
5.2.4 Do you think that your agency's decision-making proce mproved?	ss for approving/rejectin	g an NDA could be
□ Yes	□ No	
Please comment, including possible hurdles and soluti	ons	

6. CONCLUDING OBSERVATIONS

The purpose of the following two questions is to try to identify the Agency's own perception of its unique positive qualities and the major impediments it faces in carrying out the review of new medicines and making them available to meet patients' needs.

6.1 List three factors that make a major contribution to the effectiveness and efficiency of your agency's review procedures and decision-making processes for NAS applications:
1.
2.
3.
6.2 List three factors that act as barriers to making new medicines available in a timely manner through the regulatory process:
1.
2.
3.
6.3 Are there any important documents related to GRevP that you would like to share with CIRS? TYES NO
If yes please list and provide directly to CIRS:
Acknowledgement

Thank you for completing this questionnaire

GLOSSARY AND ABBREVIATIONS

Additional information	Additional data or additional analyses of existing data requested from the sponsor by the regulatory agency during the review process.
Advisory Committee	An expert committee that advises the regulatory agency of the safety, quality and efficacy of new medicines for human use.
Approval	The approval of a drug product by a regulatory agency, signified by the granting of a marketing authorisation, or the issue of a technical approval letter. However, the product may still not be marketable until negotiations for pricing and reimbursement are concluded.
Clinical summary	Summary of clinical study data that typically includes biopharmaceutic studies and associated analytical methods, clinical pharmacology studies, clinical efficacy, clinical safety, literature references, and synopses of individual studies. Refers to Module 2.7 in CTD format.
Common technical document (CTD) format	Common technical document (CTD) as outlined in the ICH guideline M4 (Organisation of the common technical document for the registration of pharmaceuticals for human use; M4).
CMC	Chemistry, manufacturing and controls. All activities conducted to optimize, scale-up and validate the processes and technologies for transfer to manufacture and all QA, QC and CMC support activities (e.g. CMC project management including CMC contribution to project teams). This includes all drug substance R&D i.e. process research and process development, all drug product R&D i.e. formulation development and process development, all analytical work for drug substance R&D and drug product R&D, clinical supplies and CMC's involvement in the compilation of regulatory documentation.
GCP	Good Clinical Practice
Good Review Practices (GRevP)	A code about the process and the documentation of review procedures that aims to standardise and improve the overall documentation and ensure timeliness, predictability, consistency and high quality of reviews and review reports.
ICH	International Conference on Harmonisation
Internal reviewers	Internal reviewers are employees of the agency.
Joint review	The whole dossier is reviewed by each agency and the outcome is discussed before a decision is taken.
Marketing Authorisation	Authorisation issued by a regulatory to launch a drug product on the market.

Marketing Authorisation Application (MAA)	Authorisation application submitted to a regulatory agency to launch a drug product on the market to which the application has been submitted.
Milestone	A milestone must involve some form of dated written document to which the regulatory agency can refer. In addition, a milestone must be considered by the regulatory agency to be the point at which one event stops and the next one begins so that the times for events are interdependent.
Major Line Extension	A major line extension is a modification to an authorised Medicinal Product that is sufficiently great that it cannot be considered to be a simple variation to the original product, but requires a new product authorisation. Such modifications include major new therapeutic indications or new disease states, extension to new patient populations (e.g., paediatrics), a new route of administration or a novel drug delivery system.
NAS (New Active Substance)	A new chemical, biological or pharmaceutical active substance includes:
	a chemical, biological or radiopharmaceutical substance not previously authorised as a medicinal product;
	an isomer, mixture of isomers, a complex or derivative or salt of a chemical substance not previously authorised as a medicinal product but differing in properties with regard to safety and efficacy from that chemical substance previously authorised;
	a biological substance previously authorised as a medicinal product, but differing in molecular structure, nature of the source material or manufacturing process;
	a radiopharmaceutical substance which is radionucleotide, or a ligand not previously authorised as a medicinal product, or the coupling mechanism to link the molecule and the radionucleotide has not been previously authorised.
Non-clinical summary	Summary of non-clinical data including: pharmacology, pharmacokinetics and toxicology. Refers to Module 2.6 in CTD format.
Peer review	Peer review means an additional evaluation of an original assessment carried out by an independent person or committee. Peer review can occur either during assessment of a dossier, or at sign-off.
Quality control	Quality control is operational techniques and activities that are used to fulfil requirements for quality. It involves techniques that monitor a process and eliminate causes of unsatisfactory performance at all stages of the quality cycle.
Quality policy	Overall intentions and direction of an organisation related to quality as formally expressed by top management.

Questions to sponsor	The process of asking the sponsor for additional data or additional analyses of existing data. The requests are made by the regulatory agency during the review process.
Scientific assessment	Review of the dossier in terms of safety, quality and efficacy of data submitted.
Shared review	Each agency takes responsibility for assessing a separate part of a dossier.
Sponsor	A company, person, organisation or institution that takes responsibility for initiating, managing or financing a clinical study.
Standard Operating	Detailed, written instructions to achieve uniformity of the
Procedures (SOPs)	performance of a specific function
Validation of a dossier	The process whereby the agency verifies that all parts of the submitted dossier are present and complete and suitable to be assessed as part of the assessment and registration process.