في اشياء الدكتوره قرأتهم من السلايد فرح اكتفي. بتحديد ولكن إذا شرحت مثال رح اكتبه don't worry
😤

Guidelines

Specifications

- A specification may list, in addition to release tests in-process tests and periodic (skip) tests,.
- In such cases the applicant should specify which tests are routinely conducted batch-by-batch, and which tests are not, with an indication and justification of the actual testing frequency.
- In this situation, the drug substance and / or drug product should meet the acceptance criteria if tested.

Justification of Specifications

- When a specification is first proposed, justification should be presented for each procedure and each acceptance criterion included.
- The justification should refer, as appropriate, to:
  - relevant development data,
  - pharmacopoeial standards,
  - test data for drug substances and drug products used in toxicology and clinical studies,
  - results from accelerated and long term stability studies.

حكينا عليها مثال انه المصنع حاطط limit عنده ولكن اكتشف ما بزيد فقرر يا يوسع يا يضيق على حالة

هسا ال justification انا بجيبه من pharmacopia انا عملت دراسات وهاي الدراسات اثبتت انه هاد limit من safe impurity

هسا هاي justification يا بتكون base على development data.. مثال عليها hardness ما في اشي بالدنيا يقلك انه hardness ما لازم تتجاوز القيمه الفلانيه ف انا بحدد hardness انه ما يأثر على friability يكون صلب كفايه حتى ما يتفتت ولكن pass disintegration هاد مثال على develpment data

Justification of Specifications

- Test results from stability and scale-up / validation batches, with emphasis on the primary stability batches, **should be considered in setting and justifying specifications**.
- It should be noted that changes in the specification after approval of the application may need prior approval by the regulatory authority.

لو غيرنا. بال acceptance criteria بناءا على stability or scale up or validation لازم اعمل spacefication
مثلا لو كنت حاطه على scale up كنت حاطه limit تبع hardness ١٢نيوتن واكتشفت على scaling up. على الماكينه الكبيره ما بوصل ١٢ يوصل ١٠ مثلا هسا هون هو ناجح friability and desolation فهون بغيرها وخلص وهاد معنى السلايد

Universal Tests			
New Drug Substances		New Drug products	
Description			
Identification			
Assay			
Impurities			
Specific Tests			
New Drug Substances	New Drug products		
	Solid oral drug products	Oral liquids	Parenteral Drug Products
Water content	Water content	Water content	Water content
Particle size		Particle size distribution	Particle size distribution
			Particulate matter
	Uniformity of dosage units	Uniformity of dosage units	Uniformity of dosage units
	Dissolution	Dissolution	
	Disintegration		
Physicochemical properties		pH	Osmolarity
Polymorphic forms	Hardness/friability		
		Extractables	
Tests for chiral new drug substances			
Microbial limits	Microbial limits	Microbial limits	Sterility
		Antimicrobial preservative content	Antimicrobial preservative content
			Endotoxins/Pyrogens
		Redispersibility	Redispersibility
Inorganic impurities			
		Reconstitution time	Reconstitution time
		Antioxidant preservative content	Extractables

Universal Tests / Criteria : New Drug Substances & Products

a) ***Description***:

For drug substance: a qualitative statement about the state (e.g. solid, liquid) and color of the new drug substance.

For drug product: A qualitative description of the dosage form should be provided (e.g., size, shape, and color).

لو بدنا نوصف حبه. Nicxum هي coated tablets لونها قرميدي مكتوب عليها من الخلف حرف N ورقم 10

- If any of these characteristics change during storage, this change should be investigated and appropriate action taken.

Universal Tests / Criteria : New Drug Substances & products

لازم تكون method الي استخدمها spacefic مثل IR
اذا كانت chromatography method هاد مش spacefic لانه
في كثير مواد إلهم نفس wavelength فهاي مش كافيه لحالها بدها
method ثانيه تدعمها

b) Identification

- Identification testing should optimally be able to discriminate between compounds of closely related structure which are likely to be present.
- Identification tests should be specific for the new drug substance, e.g., infrared spectroscopy.
- Identification solely by a single chromatographic retention time, for example, is not regarded as being specific.

Universal Tests / Criteria : New Drug Substances

b) Identification

- However, the use of two chromatographic procedures, where the separation is based on different principles or a combination of tests into a single procedure, such as **HPLC/UV diode array**, **HPLC/MS**, or **GC/MS** is generally acceptable.
- If the new drug substance is a salt, identification testing **should be specific for the individual ions**. An identification test that is specific for the salt itself should suffice.

e.g. to distinguish between diclofenac sodium and diclofenac potassium

* لازم تكون method الي انا بتبعها لازم تكون قادره على تحديد الاختلاف لنفس chemical structure يعني... لو عندي مثال الادويه الي بالاحمر ف ال method الي اختارها لازم تكون عندها capability حتى تميز individual ions وكمان
* لازم اعرف احدد chiral assay لو عندي drug products سواء Levo dopa or D dopa لانه D مش active

Universal Tests / Criteria : New Drug Substances

b) Identification

- New drug substances which are optically active may also need specific identification testing or performance of a chiral assay.

Examples:

L-Dopa (D-dopa is inactive)

Levofloxacin is the active optical isomer of ofloxacin

Levocetirizine is the active enantiomer of cetirizine

Dose تبعية 5mg

Dose 10mg

الدوز تبعه يختلف تخيلو ما كان عنا method لتميز بينهم شو. ح يصير

Identification testing for drug product should establish the identity of the new drug substance(s) in the new drug product

االشركات عاده تعمل method assay نفسها method impurity
هسا HPLC يعتبر مثال على stability indication method طيب شو معناه. هي طريقه تحليل بقدر من خلالها اشوف peak for active ingredients و لimpurity
احيانا content uniformity testing لو عملته chemical بدل w/w اعتبره assay method

لو احنا استخدمنا spacefic method زي UV لازم استخدم كمان spacefic method for impurity احنا بقدر استخدم ال titration ولكن مش على كيفنا بالغالب بالفارماكوبيا تحكيلنا نعمله ولكن هدول الاثنين ما بعطوني impurity limit

Universal Tests / Criteria : New Drug Substances and products

c) *Assay*

لازم يكون بالغالب.

A specific, stability-indicating procedure should be included to determine the content of the drug in new drug substance and new drug products.

In many cases it is possible to employ the same procedure (e.g., HPLC) for both assay of the new drug substance/product and quantitation of impurities.

- Results of content uniformity testing for new drug products can be used for quantitation of drug product strength, if the methods used for content uniformity are also appropriate as assays.

Universal Tests / Criteria : New Drug Substances and products

c) *Assay*

In cases where use of a non-specific assay is justified, other supporting analytical procedures should be used to achieve overall specificity.

For example, where titration is adopted to assay the drug substance, the combination of the assay and a suitable test for impurities should be used.

- A specific procedure should be used when there is evidence of excipient interference with the non-specific assay.