Guidance on plain language descriptions of visual appearance for oral dosage forms in WHOPARs

The description of visual appearance of finished product and packaging provided in the WHOPAR is an important part of the quality dossier. It can help the patient or health care provider

- to know that the information relates to the correct medicine (for example if a patient has multiple medicines, each with a patient information leaflet)
- to see if there is an obvious problem with the medicine (e.g. a cloudy solution when it is described as clear)
- to identify cases of falsification or error (if the description and the actual medicine do not match)

Why was this guidance developed?

- Products with similar appearances may be described differently by different suppliers, and it may not be clear exactly what details are helpful to include.
- where technical language is used to describe aspects of the appearance it is likely to be confusing to readers unfamiliar with the terms
- the description is often a single complex sentence that can be hard to read.

What does this guidance offer?

Guidance on how to describe the visual appearance of ***oral dosage forms***[1] in product information for prequalified medicines is given in this document, based on best practice in existing WHOPARs and WHO editorial requirements.[2] The general principle is that

- *the description should use consistent, standardised descriptions, in a consistent order*
- *the elements of the description should be separated into several sentences for readability, with a plain language explanation of any technical or complex terms that are needed*

The same wording should be used for section 3 of the SmPC (WHOPAR part 4) and section 6 of the patient information leaflet (WHOPAR part 3). Although a clear and consistent description is particularly important for the patient, it is likely to be helpful for health care providers too.

Section 6 of the patient information leaflet also includes a description of the **packaging**. The same principles used for the visual description should also be applied to this element of the patient information leaflet (see p. 8). (NB It will be important to ensure that WHOPAR part 5, the labelling, is aligned with this wording where necessary).

Suppliers should be aware that application of the guidance on visual descriptions may be made by WHO in WHOPAR parts 3, 4 and 5 during the editorial process, including for updates to the product information of already prequalified products. This does not impact the prequalification status of any product previously described using different wording and no additional variation is required.

Suppliers are asked to bear the guidance in this document in mind when proposing or commenting on WHOPAR product information (SmPC, patient information leaflet and labelling).

[1] ***Injectable dosage forms*** are likely to be administered directly to the patient by a health care provider, and guidance for these has not been included. However, the same principles as for oral dosage forms could be applied.

[2] The principles are also in line with those given in the Guideline on the Readability of the Labelling and Package Leaflet of Medicinal Products for Human Use (rev 1) issued by the European Commission (2009).

Recommendations for specific dosage forms.

1. TABLETS

Recommended general structure of the visual description:

• In the SmPC section 3, *precede* the visual description with a line stating the ***pharmaceutical form,*** using the EDQM Standard Terms (e.g. Tablet, Dispersible tablet, Controlled-release tablet). This is not required for the patient information leaflet section 6. *NB In the subsequent sentences of the visual description, simply refer to the product as 'tablets'*.
• Begin the visual description with a sentence describing the ***colour*** (see section 1.1 below), ***overall shape*** (outline shape as seen from above, see section 1.2) and ***coating or finish*** of the tablet (see section 1.3).
• Follow this with a sentence describing the ***3D shape***, i.e. the shape of the tablet when viewed from the side (section 1.4)
• Finally, in a third sentence describe the ***markings and divisions*** of the tablet (see section 1.5)

1.1. Colour

- use basic colour terms: red, orange, yellow, green, blue, purple, pink, brown, white, grey and black
    - do not add the word 'coloured' to these basic terms, since each is an adjective in its own right, i.e. 'yellow', not 'yellow-coloured'
- basic colour terms may be compounded, e.g. reddish-brown, greenish-yellow, yellowish-white, purplish-pink and so on. Use the adjectival form (reddish, greenish etc) when compounding, as simple compounds like 'red-brown', 'blue-green' could be misunderstood as meaning that the tablet is bicoloured.
- colour terms (whether basic or compounded) may be modified by preceding them with colour qualifiers such as light, dark, clear, pale, or where colour is not uniform, mottled.
- avoid analogue colour terms based on the colour of some other object, i.e. use 'pale orange' rather than 'salmon-coloured' or 'peach-coloured', 'light brown' rather than 'tan', since readers may not have a clear and consistent idea of the colour intended.
- where appropriate, a colour range may be specified, using the above principles, e.g. 'white to pale yellow', 'mottled pale yellow to light brown', 'dark red to dark reddish-brown'

1.2. Overall shape

- describe the outline of the tablet as seen from above, e.g. round, oval, capsule-shaped, oblong, diamond-shaped, square, rectangular, triangular, pentagonal, etc.
    - use 'round' rather than 'circular'
- do not add the word 'shaped' unless the term is a noun with a separate meaning of its own and might therefore confuse (so state 'capsule-shaped' or 'diamond-shaped' but NOT 'round-shaped' or 'oval-shaped').
- For less usual shapes such as pentagonal, hexagonal, octagonal, where the adjective is not commonly used in everyday language, add an explanation in brackets, e.g. hexagonal (6-sided), pentagonal (5-sided), octagonal (8-sided).

1.3. Coating and finish

- Describe any coating on the tablet (e.g. film-coated, sugar-coated)
- if there is no coating then state 'uncoated' so that this element is always present
- if there is a particular finish, e.g. matt-finished this can optionally be added.

1.4. 3D-shape

- use the second sentence to describe the shape of the tablets as seen from the side
- describe the curvature of the upper and lower surfaces, that is whether they are flat or rounded (convex or concave); if the tablet is biconvex (a technical term) provide an explanation in plain language, i.e 'They are biconvex (rounded on top and bottom)…'
- always state the nature of the edge, i.e. whether it is flat or rounded, and the existence of any bevel, e.g. 'They are biconvex (rounded on top and bottom) with a flat edge.', 'They are flat on the top and bottom, with a bevelled edge.'

1.5. Markings and divisions

- use a third sentence to describe any designs on the tablet and the existence of break/score lines
- where such markings are only on one side of the tablet, always state 'and plain on the other side'
- if the design is printed, the colour of the ink should be described, using the basic colour terms and modifiers as for tablet colour, e.g 'with 'C4' printed in black on one side and plain on the other side'.
    - Do not use trade names, technical descriptors or Pantone colours to describe ink colours in the product information
- where a design is sunk or raised during the formulation process:
    - if it is debossed, this technical term should be followed with the explanation '(stamped into)', e.g. 'with 'X29' debossed (stamped into) one side and plain on the other side'
    - if it is embossed, it should be explained as '(as a raised marking)', e.g. 'with 'X29' embossed (as a raised marking) on one side and plain on the other side'
- where the tablet has break or score lines:
    - If the tablet is intended to be broken into equal doses, use the term **break line**. If the tablet has crossed break lines intended for breaking the tablet into quarters, state this, e.g. 'with crossed break lines on one side and plain on the other side'.

      Follow the description with the sentence: 'The break line can be used to divide {DotWP-ProductName} into equal doses .'
    - If the tablet may be broken for ease of swallowing, use the term **break line**.

      Follow the description with the sentence: 'The break-line can be used to break the tablet for ease of swallowing but not to divide it into equal doses.'
    - If the line is purely decorative and the tablet is not intended to be broken, use the term score line.

      Follow the description with the sentence: 'The score line is not intended for breaking the tablet.'

      NB use of a score line for purely decorative purposes is deprecated, as it may encourage inappropriate attempts to break the tablet.

Examples of visual descriptions of tablets, showing how the structure applies:

Colour				**Overall shape**	**Coating/finish**	**dose form**	**3D shape (sentence 2)**		**Markings and divisions (sentence 3)**	
colour range							*upper and lower*	*edge*	*markings*	*divisions*
qualifier	colour	qualifier	colour							
Pale	yellow	to light	brown,	oval,	film-coated	tablets.	They are biconvex (rounded on top and bottom)	with a flat edge.	The tablets have 'HD4' debossed (stamped into) one side	and a break line on the other side
	White,			capsule-shaped,	uncoated, matt-finished	tablets.	They are biconvex (rounded on top and bottom)	with a flat edge.		The tablets have a break line on one side and are plain on the other side.
	Red to		reddish-brown,	round,	film-coated	tablets.	They are flat on the top and bottom	with a bevelled edge.	The tablets are printed in black with 'RR' on one side and are plain on the other side.	
Pale	yellowish-white			hexagonal (6-sided),	uncoated	tablets.	They are flat on the top and bottom	with a flat edge.		The tablets have a break line on both sides.

2. HARD CAPSULES

Recommended general structure of the visual description

• In the SmPC section 3, *precede* the visual description with a line stating the ***pharmaceutical form,*** using the EDQM Standard Terms, e.g. hard capsule, controlled-release capsule. This is <u>not</u> required for the patient information leaflet section 6.
• begin the visual description with a sentence describing the ***material*** of the capsules (section 2.1) and the ***colour of the cap and body*** (see section 2.2).
• in a second sentence describe any ***markings or designs*** printed on the capsules (see section 2.3)
• use a third sentence to describe the ***contents*** of the capsules (see section 2.4).

2.1. Material

- describe the material of which the capsules are made, e.g. 'Hard gelatin capsules', 'hard cellulose capsules'. This information should be included as it may be important to the patient for dietary or religious reasons.

2.2. Colour

- as for tablets (see section 1.1) use basic colour terms, with colour qualifiers as appropriate.
    - Unlike tablets, a capsule shell may also have the colour value 'colourless'
    - the colouring of a capsule shell may be transparent, translucent (i.e. milky or semi-transparent) or opaque; always specify one of these with the colour, e.g. 'opaque white', 'transparent colourless'
- specify whether the cap and body differ in colour or are the same, e.g. 'with a transparent orange cap and an opaque white body', 'with an opaque dark green cap and body'

2.3. Markings

- describe any printed designs on the capsule in a second sentence; the description should state whether these are on the cap or body or both.
- the ink colour should be specified using the same basic colour terms (with a qualifier if necessary), e.g. 'The capsules are printed in black on the cap with 'H4' and are plain on the body', 'The capsules are printed in dark blue on the cap with 'CC' and on the body with '240MG'
- if there are no markings of any sort, include a sentence saying 'They are plain with no markings.'

2.4. Contents

- The colour and nature of the capsule contents should be described, even if the capsule is to be swallowed whole, since it may help in identification (e.g. if a medication error occurs)
    - if the capsule should not be opened before ingestion, follow the description of the contents with an additional sentence saying 'Note: The capsules are to be swallowed whole, see <*cross reference to posology section of relevant document*>.'
- For hard capsules the content will normally be powder or granules. Describe the texture or appearance of these if appropriate.
- Colours should be described using the same basic colour terms as for the shell, e.g 'They contain a white to yellowish-white coarse granular powder', 'They contain white, yellow and red spherical granules', 'They contain a dark orange powder'.

Examples of visual descriptions of hard capsules:

Hard gelatin capsules with an opaque white cap and body. The capsules are printed in black on the cap with 'D' and on the body with '01'. They contain a white powder. Note: The capsules are to be swallowed whole, see <section 4.2/'How to take [product name]'.

Hard cellulose capsules with an opaque dark green cap and an opaque white body. They are printed in white on the cap with 'X' and in black on the body with 'M1'. They contain white to off white granules. [3]

Hard gelatin capsules with a transparent orange cap and a transparent colourless body. They are printed in black on the cap with 'XR' and on the body with '75'. They contain red and white granules. Note: The capsules are to be swallowed whole, see <section 4.2/'How to take [product name]'.

3. SOFT CAPSULES

Recommended general structure of the visual description

• In the SmPC section 3, *precede* the visual description with a line stating the ***pharmaceutical form,*** using the EDQM Standard Terms, e.g. soft capsule. This is not required for the patient information leaflet section 6.
• begin the visual description with a sentence describing the ***shape*** (see section 3.1), ***colour*** (section 3.2) and ***material*** of the capsules (see section 3.3).
• in a second sentence describe any ***markings or designs*** printed on the capsules (see section 3.4)
• use a third sentence to describe the ***contents*** of the capsules (see section 3.5).

3.1. Shape

- begin by specifying the shape of the capsules e.g. oval, teardrop-shaped, oblong

3.2. Colour

- as for tablets (see section 1.1) use basic colour terms, with colour qualifiers as appropriate

3.3. Material

- as with hard capsules it is good practice to describe the material of the capsule shell. For soft capsules this will normally be gelatin
    - for grammatical reasons, the material should follow the identifier 'soft' in the sentence, i.e. 'soft gelatin capsules' rather than 'gelatin soft capsules'

3.4. Markings

- describe any printed designs on the capsule in a second sentence
- the ink colour should be specified using the basic colour terms (with a qualifier if necessary), e.g. 'The capsules are printed in black with 'X4'
- if there are no markings of any sort, include a sentence saying 'They are plain with no markings.'

3.5. Contents

- The colour and nature of the capsule contents should be described, even if the capsule is to be swallowed whole, since it may help in identification (e.g. if a medication error occurs)

[3] *NB No sentence saying to swallow whole, since in this example, posology allows capsules to be opened and the contents sprinkled on food*

- if the capsule should not be opened before ingestion, which will normally be the case for soft capsules, follow the description of the contents with an additional sentence saying 'Note: The capsules are to be swallowed whole, see <cross reference to posology section of relevant document>.'
- for soft capsules the contents may be liquids (solutions or suspensions) or semi-solid (gels or pastes). Describe as plainly as possible, describing the colour and nature as appropriate, and giving an explanation of any technical terms in brackets afterwards if necessary, e.g. 'They contain a light brown oily suspension (mixture)', 'They contain a dark red solution (liquid)', 'They contain a white to yellowish white paste'.

Examples of visual descriptions of soft capsules

Oval, opaque brown, soft gelatin/glycerin capsules, The capsules are plain and have no markings. They contain a reddish-brown oily suspension. Note. The capsules are to be swallowed whole, see <section 4.2/'How to take [product name]'.

Teardrop-shaped, opaque yellowish-white soft gelatin capsules. The capsules are printed in black with 'LL#'. They contain a white to yellowish-white paste. Note. The capsules are to be swallowed whole, see <section 4.2/'How to take [product name]'.

Oblong, opaque white, soft gelatin capsules. The capsules are printed in dark green with a heart shape and 'A'. They contain a translucent colourless gel. Note. The capsules are to be swallowed whole, see <section 4.2/'How to take [product name]'.

4. GRANULES OR POWDER FOR ORAL SUSPENSIONS AND SOLUTIONS

Recommended general structure of the visual description:

• In the SmPC section 3, *precede* the visual description with a line stating the ***pharmaceutical form,*** using the EDQM Standard Terms, e.g. Powder for oral solution. This is <u>not</u> required for the patient information leaflet section 6.
• The first sentence should describe the ***colour*** (section 4.1) and optionally ***other description*** of the product such as flavouring or texture (see section 4.2), and whether it is powder or granules
• An optional second sentence may provide additional descriptive information if needed (see section 4.3)
• A third sentence should clarify that the product is for making a solution or suspension to be taken by mouth (see section 4.4).

4.1. Colour

- use basic colour terms (see section 1.1) with any qualifiers if necessary. Where appropriate a colour range may be used.

4.2. Other properties

- describe any flavouring or aroma, e.g. 'strawberry-flavoured' where relevant, and if appropriate any distinguishing texture or other visual properties, e.g. 'coarse', 'granular', 'irregular'.

4.3. Additional descriptive information

- If necessary, an optional additional sentence containing additional descriptive information that supplements that in the first sentence may be included, e.g. 'A white, coarse powder. It may contain specks of yellow.'

4.4. Concluding sentence

- For the benefit of patients, as a reminder that the visual description applies to the product before it is made up, the description should conclude with a sentence stating: 'The <powder is/granules are> for making a <solution (liquid)/suspension (mixture)> to be taken by mouth.'

Examples of visual descriptions of oral powders/granules:

A coarse, white powder. It may contain specks of yellow. The powder is for making a solution (liquid) to be taken by mouth.

Orange to orange-red, fruit-flavoured granules. The granules are for making a suspension (mixture) to be taken by mouth.

Light brown, irregular, chocolate-flavoured granules. The granules are for making a suspension (mixture) to be taken by mouth.

5. ORAL SOLUTION/SUSPENSION

Recommended general structure of the description:

• In the SmPC section 3, *precede* the visual description with a line stating the ***pharmaceutical form,*** using the EDQM Standard Terms, e.g. Oral solution. This is <u>not</u> required for the patient information leaflet section 6.
• The first sentence should describe the ***colour*** (see section 5.1) and optionally ***other properties*** of the product such as flavouring (section 5.2), and whether it is a solution or a mixture. The form should be followed with a clarification for non-technical readers as follows 'solution (liquid)' or 'suspension (mixture)'
• An optional second sentence may provide additional descriptive information if needed (see section 5.3).

5.1. Colour

- use basic colour terms (see section 1.1) with any qualifiers if necessary. Always state whether clear, translucent (milky) or opaque. Where appropriate a colour range may be used.

5.2. Other properties

- describe any flavouring or aroma, e.g. 'mint-flavoured' if present, and if appropriate any distinguishing texture or other visual properties, e.g. 'thick', 'syrupy', 'sticky', 'chalky'.

5.3. Additional descriptive information

- If necessary, an optional additional sentence containing additional descriptive information that supplements that in the first sentence may be included, e.g. 'An opaque, yellowish white to brownish white chalky suspension (mixture). It separates on standing into a clear yellowish-brown liquid above an opaque white layer.'

Examples of visual descriptions of oral solutions/suspensions:

A clear, colourless to pale yellow, strawberry-flavoured solution (liquid).

An opaque, white suspension (mixture). It separates on standing, into a clear colourless liquid above an opaque white layer.

A translucent (milky), yellow, thick, banana-flavoured solution (liquid). It becomes less thick on shaking.

Recommendations for description of specific forms of packaging

6. BOTTLES/POTS
7. BLISTERS/STRIPS

Note. Where a medicine may be packaged in several different ways, each should be listed, using the principles below; a bulleted list may be considered. An introductory sentence may be used where appropriate, e.g. 'The medicine is available in the following packs:'.

Guidance is offered for the commonest forms of packaging for prequalified medicines; the same principles as elsewhere in this document should be applied for any forms of packaging not listed below.

6. BOTTLES/POTS

Recommended structure of the description:

• begin with a description of the ***shape***, ***colour*** and ***material*** of the bottle or pot (or other lidded container) (see sections 6.1 to 6.3 for further information), and then the number or quantity of ***dosage units*** that it can contain (section 6.4)
• in a second sentence, provide any ***additional information*** on the pack and contents (section 6.5), including the presence of desiccants or protective materials, or co-packaged administration devices.
• use a third sentence to describe the ***closure*** (see section 6.6).

6.1. Shape

- describe the shape of the bottle or pot (usually 'round' or 'square')

6.2. Colour

- describe the colour of the material using basic colour terms with a qualifier if needed, as in section 1.1. State whether the container is opaque or clear, e.g. 'clear brown' or 'opaque white'

6.3. Material

- for readability, describe the material of the bottle or pot in simple terms, e.g. 'glass' or 'plastic'. If appropriate, qualifying details can be given in brackets after this description, e.g. 'glass (sodium free)' or 'plastic (HDPE)'

6.4. Dosage units

- complete the initial sentence by stating the number or quantity of dosage units contained in a bottle or pot. If several sizes exist, list quantities with 'or', e.g. 'containing 12, 24 or 48 tablets.', 'containing 50, 200 or 500 grams of granules.'

6.5. Additional information

- describe any additional materials or objects included within the container such as desiccants, additional protective packaging. E.g. 'It also contains a sachet of desiccant (drying material) and a piece of rayon wool to keep the tablets in place.', 'The tablets are packed in a sealed clear, colourless plastic (polyethylene) bag inside the pot.'
- describe any co-packaged items such as administration devices, together with any outer pack used to keep them together, e.g. 'It is packed in a clear plastic pouch that also contains a 2-mL oral syringe and a 10-mL measuring cup.'

6.6. Closure

- the description of the closure should specify its colour, material, and type (e.g. screw-cap, push-on lid). Also state if a closure is child-proof or has some other defining characteristic, e.g. 'a black, ribbed plastic (polypropylene) screw cap', 'a white, childproof plastic screw cap'.

Examples of packaging descriptions for bottles/pots:

round, clear brown glass bottle containing 30 or 100 tablets. It also contains a sachet of desiccant (drying material) and a piece of rayon wool to keep the tablets in place. The bottle has a white, childproof plastic (polypropylene) screw cap.

square, opaque white plastic (HDPE) pot containing 1000 tablets. The tablets are packed in a sealed semi-transparent plastic (polyethylene) bag inside the pot. The pot has an aluminium/plastic foil seal and a white plastic screw cap.

round, clear brown plastic (PET) bottle containing 100 or 240 mL of suspension. It is packed in a clear plastic pouch with a 2-mL oral syringe and a 10-mL measuring cup. The bottle has a black plastic screw cap.

7. BLISTERS/STRIPS/SACHETS

Recommended structure of the description:

• begin by describing the ***colour, materials*** and ***type of packaging*** (i.e. blister cards, strip packs or sachets) followed by the number and type of ***dosage units*** contained (see sections 7.1 to 7.4)
• use a second sentence to describe any additional information required (see section 7.5)
• Complete the description with details of the packs and sizes of the outers containing the blister or strip (see section 7.6 for further information).

7.1. Colour

- describe the colour of any plastic or similar material used to form a blister card, strip pack, or sachet. Use basic colour terms (section 1.1) with a colour qualifier if necessary.
- State also whether such material is clear or opaque, e.g 'opaque white plastic (PE)' or 'clear colourless plastic (PVC/PVDC)'.
- It is not necessary to describe the colour or opacity of aluminium foil

7.2. Materials

- for readability, describe the materials in simple terms (e.g.) plastic, with details following in brackets if required, e.g. 'plastic (PVC/PE/PVDC)'
- where multiple materials are involved, list them using natural language, e.g. 'opaque white plastic (PVC/PE) on aluminium foil blister cards', 'triple-laminated (3-layer) plastic (PVC/PE) and aluminium foil sachets'

7.3. Type of packaging

- describe as blister card, strip pack rather than blister, strip (to make it clear the whole unit is being described; sachets however are simply sachets

7.4. Dosage units

- complete the initial sentence by stating the number or quantity of dosage units contained in a blister card, strip pack, or sachet.

7.5. Additional information

- if additional information describing the packaging unit is required, put this in an optional second sentence.

7.6. Outers

- Complete the description with a separate sentence describing the outer pack(s) and sizes in which the blister cards, strip packs or sachets are provided, e.g. 'Available in cartons of 6 X 6 and 30 X 6 capsules.', 'Available in boxes of 1X28 tablets.'.

Examples of packaging descriptions for blisters/strips/sachets:

opaque white plastic (PVC/PE/PVDC) on aluminium foil blister cards, each containing 6 capsules. Available in cartons of 6×6 and 30×6 capsules.

clear colourless plastic (PVC/PVDC) on aluminium foil blister cards, each containing 10 or 30 tablets. Available in boxes of 3×10, 10×10 or 10×30 tablets.

aluminium foil strip packs, each containing 14 capsules. Available in boxes of 3×14 or 24×14 capsules.

opaque red plastic (PVC) on aluminium foil blister cards, containing 28 tablets. Available in packs of 1×28 tablets.

square, 3-layer (triple-laminated) plastic (PVC/PE) and aluminium foil sachets, containing 1000 mg of granules. Available in cartons of 120 sachets.