PRESCRIBING INFORMATION
with the Consumer Information

FLUORESCITE*

fluorescein injection, USP

fluorescein 10% w/v (as fluorescein sodium)

Sterile

Diagnostic Agent

Novartis Pharmaceuticals Canada Inc.
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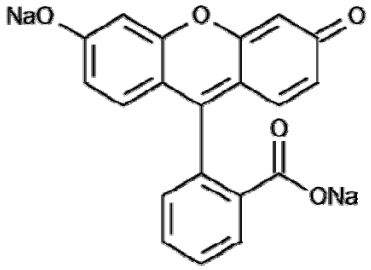
DESCRIPTION

FLUORESCITE* is a sterile aqueous solution for intravenous use as a diagnostic aid.

Common name: Fluorescein Sodium
Chemical name: Spiro [isobenzofuran-1 (3*H*), 9'- [9*H*] xanthene]-3-one, 3'6' dihydroxy, disodium salt.
Structural formula:



FLUORESCITE* is a clear, red-orange solution.

CLINICAL PHARMACOLOGY

The yellowish-green fluorescence of fluorescein demarcates the vascular area under observation distinguishing it from adjacent areas.

INDICATIONS AND CLINICAL USE

FLUORESCITE* is indicated in:

- Diagnostic fluorescein angiography
- Angioscopy of the fundus and of the iris vasculature

CONTRAINDICATIONS

FLUORESCITE* is contraindicated in patients who have shown hypersensitivity to fluorescein or to any other component of the preparation.

FLUORESCITE* should not be injected intrathecally or intra-arterial.

WARNINGS AND PRECAUTIONS

Serious Warnings and Precautions

The benefit of a fluorescein angiography should be balanced with the risk of severe hypersensitivity reactions (with fatal outcome in some cases).

General

NOT FOR INTRATHECAL USE – INTRAVENOUS INJECTION FOR OPHTHALMIC USE ONLY.

Fluorescein sodium can induce serious intolerance reactions. These intolerance reactions are always unpredictable, but they are more frequent in patients who have previously experienced an adverse reaction after fluorescein injection (symptoms other than nausea and vomiting), in patients with a history of allergy (such as food or drug induced urticarial, asthma, eczema, allergic rhinitis) or in patients with a history of bronchial asthma.

Intradermal skin tests have limited predicted value with serious intolerance reactions to fluorescein. Fluorescein intolerance reactions can occur following a negative intradermal skin test.

Detailed questioning of each patient must be carried before the angiography to evaluate any prior history of cardiopulmonary disease or allergy or concomitant medications (see DRUG INTERACTIONS).

The risk of hypersensitivity reactions with fluorescein sodium requires:

- To have at one's disposal appropriate material for emergency resuscitation (including the appropriate facilities and trained personnel), which is based at first on the installation of a 2nd intravenous line, allowing the restoration of the plasma volume (aqueous solution polyionic or colloidal substitute of plasma) and the intravenous injection of adrenaline and other standard resuscitation drugs at the recommended dosage (see DRUG INTERACTIONS);
- Close monitoring of the patient by the ophthalmologist performing the examination, throughout the examination and for at least 30 minutes thereafter;
- Maintaining the infusion line for at least 5 minutes, to treat a possible severe adverse reaction without delay;
- In addition, in patients identified as being at risk of hypersensitivity reactions, but in whom a fluorescein angiography is considered to be essential, it is recommended to carry out the procedures with the equipment and personnel trained in emergency resuscitation in the treatment room.

Care must be taken to avoid extravasation during injection as the high pH of fluorescein solution can result in severe local tissue damage. The following complications resulting from extravasation of fluorescein have been noted to occur: sloughing of the skin; superficial phlebitis; subcutaneous granuloma; and toxic neuritis along the median curve in the antecubital area. Complications resulting from extravasation can cause severe pain the arm for up to several hours. The correct intravenous position of the needle tip must be ascertained. When significant extravasation occurs, the injection should be discontinued and conservative measures to treat the damaged tissue and to relieve pain should be implemented. Do not mix or dilute with other solutions or drugs in syringe. Flush intravenous cannulas before and after drugs are injected to avoid physical incompatibility reactions.

The benefit to risk of the angiography procedure should be considered in patients with pre-existing conditions, such as cardiovascular disease, diabetes mellitus, and multiple concomitant drug therapies, in particular beta-blockers (see INTERACTIONS).

FLUORESCITE* contains up to 3.15 mmol (72.45 mg) sodium per dose. This should be taken into consideration by patients on a controlled sodium diet.

Discolouration: The patient must be made aware that after application, skin will attain a temporary yellowish discolouration and urine will attains a bright yellow colour. Discolouration of the skin fades in 6 to 12 hours; urine fluorescein fades in 24 to 36 hours.

Effects on Ability to Drive and Use Machines: The patient must be made aware that after application and until visual acuity returns to normal, driving a vehicle or operating dangerous machinery is not recommended**.**

Carcinogenesis and Mutagenesis

There have been no long-term studies done using fluorescein in animals to evaluate carcinogenic potential.

Sexual Function/Reproduction

Studies have not been performed to evaluate the effect of intravenous administration of fluorescein on fertility.

Special Populations

Pregnant Women: There are insufficient data available concerning the use of FLUORESCITE* in pregnancy. Animal studies do not indicate teratogenic effects. However, due to limited experience, caution should be exercised when considering the use of FLUORESCITE* during pregnancy.

Nursing Women: Fluorescein sodium is excreted in human milk for up to 7 days following systemic administration. A risk to the suckling child cannot be excluded. Following fluorescein angiography, breast-feeding should therefore be temporarily discontinued for at least 7 days and the milk should be pumped off and discarded during this period.

Pediatrics (< 18 years of age): FLUORESCITE* may be used in pediatric patients less than 18 years of age.

Geriatrics (> 65 years of age): No overall differences in safety or effectiveness have been observed between elderly and other adult patients.

ADVERSE REACTIONS

The following adverse reactions have been reported with the use of FLUORESCITE*. Frequencies cannot be estimated from the available data.
Cardiac disorders: angina pectoris, bradycardia, cardiac arrest, tachycardia
Gastrointestinal disorders: abdominal discomfort, abdominal pain, gastrointestinal distress, nausea, retching, vomiting
General disorders and administration site conditions: asthenia, chest pain, chills, edema, extravasation, feeling hot, hot flush, malaise, pain
Immune system disorders: anaphylactic reaction, anaphylactic shock, hypersensitivity
Nervous system disorders: cerebrovascular accident, convulsion, dizziness, dysgeusia, headache, hypoesthesia, loss of consciousness, paresthesia, syncope, tremor
Renal and urinary disorders: urine fluorescein
Respiratory, thoracic and mediastinal disorders: asthma, bronchospasm, cough, dyspnea, laryngeal edema, pulmonary edema, respiratory arrest, sneezing, throat irritation, throat tightness
Skin and subcutaneous tissue disorders: cold sweat, eczema, erythema, hyperhidrosis, pruritis, rash, skin discolouration, urticarial
Vascular disorders: basilar artery ischemia, hypertension, hypotension, pallor, shock, thrombophlebitis, vasodilatation, vasospasm, vertebrobasilar insufficiency

Rare cases of death have been reported. Extravasation of the solution at the injection site causes intense pain at the site and a dull aching pain in the injected arm.

DRUG INTERACTIONS

Fluorescein is a relatively inert dye and specific drug interactions have not been reported. There are a few case reports of potential interactions with organic anion transporters and interference with certain laboratory tests. The fluorescence may interfere with the analysis of blood and urinary parameters for a period of 3 to 4 days. Caution is advised when performing therapeutic drug monitoring to drugs with a narrow therapeutic window, e.g. digoxin, quinidine. Compounds that inhibit or compete with the active transport of organic anions (e.g., probenecid) may affect the systemic profile of fluorescein.

The concomitant use of FLUORESCITE* with beta-blocking agents (including eye drops) may rarely provoke severe anaphylactic reactions. Beta-blocking agents could reduce the vascular compensation reactions to anaphylactic shock and also reduce the effectiveness of adrenaline in the presence of cardiovascular collapse.

Concomitant intravenous injection of other solutions or the mixing of FLUORESCITE* with other solutions should be avoided as the possibility of interactions cannot be excluded.

DOSAGE AND ADMINISTRATION

Use only if the container is undamaged.

Parental drug products should be inspected visually for particulate matter and discolouration prior to administration, whenever solution and container permit. Do not mix or dilute with other solutions or drugs in syringe. Flush intravenous cannulas before and after drugs are injected to avoid physical incompatibility reactions.

Inject the contents of the vial or pre-filled syringe rapidly into the antecubital vein, **after taking precautions to avoid extravasation**. A syringe, filled with fluorescein, is attached to transparent tubing and a 25 gauge scalp vein needle for injection. Insert the needle and draw the patient's blood to the hub of the syringe so that a *small* air bubble separates the patient's blood in the tubing from the fluorescein. With the room lights on, slowly inject the blood back into the vein while watching the skin over the needle tip. If the needle has extravasated, the patient's blood will be seen to bulge the skin and the injection should be stopped before any fluorescein is injected. When assured that extravasation has not occurred, the room light may be turned off and the fluorescein injection completed. Luminescence appears in the retina and choroidal vessels in 9 to 14 seconds and can be observed by standard viewing equipment.

If potential allergy is suspected, an intradermal skin test may be performed prior to intravenous administration, i.e., 0.05 mL injected intradermally to be evaluated 30 to 60 minutes following injection.

For children, the dose is calculated on the basis of 35 mg for each ten pounds of body weight.

OVERDOSAGE

No case of overdose has been reported. No toxic effects are expected given the minimal risk of overdose with FLUORESCITE*.

For management of a suspected drug overdose, contact your regional Poison Control Centre.

STORAGE AND STABILITY

Store at 2º - 30ºC (36º - 86ºF).

DOSAGE FORMS, COMPOSITION AND PACKAGING

FLUORESCITE* contains:
Medicinal ingredient: fluorescein 10% w/v (as fluorescein sodium)
Non-medicinal ingredients: sodium hydroxide and/or hydrochloric acid (to adjust pH), water for injection.

FLUORESCITE* is supplied as a 10% solution for injection in 5 mL vials.

CONSUMER INFORMATION

FLUORESCITE*
Fluorescein injection, USP

This leaflet is designed specifically for Consumers. This leaflet is a summary and will not tell you everything about FLUORESCITE*. Contact your doctor or pharmacist if you have any questions about the drug.

ABOUT THIS MEDICATION

What the medication is used for:
FLUORESCITE* is a diagnostic aid used by your doctor as part of certain eye exams.

What it does:
FLUORESCITE* contains fluorescein sodium, which acts by lighting up your eye (*fluorescence*) to allow your doctor to see the blood moving through the small blood vessels at the back of your eye(s).

When it should not be used:
FLUORESCITE* should not be used if you are allergic to fluorescein sodium or any other of the ingredients in FLUORESCITE* (see What the important nonmedicinal ingredients are).

FLUORESCITE* is injected into a vein and must not be injected into an artery or intrathecally (i.e. into any space surrounded by a sheath or membrane, such as the spine or brain).

What the medicinal ingredient is:
Fluorescein sodium (fluorescein 10 mg/mL)

What the important nonmedicinal ingredients are:
Hydrochloric acid and/or sodium hydroxide (to adjust pH), purified water

What dosage forms it comes in:
FLUORESCITE* comes as a solution for intravenous injection in a 5 mL bottle.

WARNINGS AND PRECAUTIONS

Serious Warnings and Precautions

Your doctor must weigh the benefit of using FLUORESCITE* as a diagnostic agent with the risk of a serious allergic reaction (see Side Effects and What to Do About Them).

BEFORE FLUORESCITE* is used, tell to your doctor if you:

- Have ever had any side effects (other than nausea or vomiting) after FLUORESCITE* was used.
- Have a history of allergies, including those to foods or other drugs.
- Have asthma.
- Have or have had heart disease.
- Have diabetes.
- Are taking many different drugs at the same type.
- Are pregnant or planning to become pregnant.

These are all important factors your doctor needs to know about when deciding whether to use FLUORESCITE*.

Low Salt Diet
Before FLUORESCITE* is used, tell your doctor if you are on a low salt diet. FLUORESCITE* can contain a lot of salt.

Breastfeeding
Tell your doctor if you are or planning to breastfeed. Stop breastfeeding for at least 1 week after FLUORESCITE* is used. Breast milk should be pumped and discarded.

Driving and Using Machines
If you experience blurry vision after FLUORESCITE* is used, wait until your vision is back to normal before driving or using machines.

INTERACTIONS WITH THIS MEDICATION

Tell your doctor about all the medicines you are taking, recently took or are planning to take.

Drugs that may interact with FLUORESCITE* include:

- Beta-blocking agents (e.g. propranolol, atenolol, sotalol).
- Antiarrhythmics (for irregular heartbeat, e.g. quinidine, digoxin).
- Probenecid (gout medicine).

If you are scheduled for any laboratory tests, tell your doctor that you were given FLUORESCITE* as it may affect your test results.

PROPER USE OF THIS MEDICATION

Usual dose:
Your doctor will decide how much to give to you or your child and will administer FLUORESCITE* by injection into a vein.

Overdose:
Your doctor should carefully decide how much FLUORESCITE* to give you to avoid an overdose.

If you feel you have been given too much FLUORESCITE*, contact your attending health care practitioner, hospital emergency department or regional Poison Control Centre immediately, even if there are no symptoms.

SIDE EFFECTS AND WHAT TO DO ABOUT THEM

Like all medicines, FLUORESCITE* may cause side effects, but not everyone gets them.

Side effects that can occur at the injection site may include: general pain and soreness or accidental leakage of FLUORESCITE* into surrounding areas, which may cause intense pain, local reaction and other effects, such as a dull aching pain in the injected arm. If this occurs, contact your healthcare professional immediately for medical attention.

Your skin may also become yellowish in colour and your urine may become bright. These effects should go away on their own after a few days.

Other side effects include: stomach pain/discomfort, nausea, vomiting, feeling hot or cold, dizziness, bad taste in the mouth, fainting, a tingling or numb sensation, headache, tremors, cough, shortness of breath, sneezing, throat irritation, rash or itchy skin, excess sweating and low or high blood pressure.

SERIOUS SIDE EFFECTS, HOW OFTEN THEY HAPPEN AND WHAT TO DO ABOUT THEM

Tell your doctor if you experience nay of the following side effects:

- **Allergic reaction (includes itching, hives, difficulty breathing, swelling in the throat, chest tightness and itching or tingling around the lips or tongue).**
- **Severe shock or fits (*convulsions*).**
- **Swelling in the vein.**
- **Irregular heartbeat or cardiac arrest (i.e. heart stops beating).**

Your doctor will watch you closely for any signs of these serious side effects, for at least 30 minutes after treatment, and give you immediate medical treatment if you need it.

This is not a complete list of side effects.

HOW TO STORE IT

The healthcare professional will store FLUORESCITE* between 2ºC to 30ºC.

REPORTING SUSPECTED SIDE EFFECTS

You can report any suspected adverse reactions associated with the use of health products to the Canada Vigilance Program by one of the following 3 ways:

$ Report online at www.healthcanada.gc.ca/medeffect
$ Call toll-free at 1-866-234-2345
$ Complete a Canada Vigilance Reporting Form and:
- Fax toll-free to 1-866-678-6789, or
- Mail to: Canada Vigilance Program
Health Canada
Postal Locator 0701D
Ottawa, Ontario
K1A 0K9

Postage paid labels, Canada Vigilance Reporting Form and the adverse reaction reporting guidelines are available on the MedEffect™ Canada Web site at www.healthcanada.gc.ca/medeffect.

NOTE: Should you require information related to the management of side effects, contact your health professional. The Canada Vigilance Program does not provide medical advice.

You may also report any suspected side effects to Novartis Pharmaceuticals Inc. directly at: 1-800-363-8883.

MORE INFORMATION

This document plus the full product information, prepared for health professionals can be found at:
www.novartis.ca
or by contacting the sponsor, Novartis Pharmaceuticals Canada Inc., at: 1-800-363-8883

This leaflet was prepared by Novartis Pharmaceuticals Canada Inc.

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