

Richard (Dik) Solare

1. Richard Solare

1.1 Meet Richard Solare

This screenshot shows the initial interface for a virtual patient named Richard (Dik) Solare. On the left, there is a vertical sidebar with icons for navigation and a user profile. The main content area features the patient's name, a text box with a description of the patient, and three buttons: 'Dik', 'You', and 'Dik Replies'. Below these buttons is an orange 'Physical Exam' button. On the right, there is a full-body illustration of an elderly man with a cane, standing against a light blue background.

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Richard (Dik) Solare

Dik ("I spelled it without the 'c' as a kid and it stuck") is a 70 year old man. He is worried about some spots on his face

Dik You Dik Replies

Physical Exam

Button 1 (Slide Layer)

This screenshot shows the same interface as above, but with a slide layer open over the text box. The slide layer contains the name 'Dik' and a quote from him. The 'Physical Exam' button is still visible below the slide layer. The rest of the interface, including the sidebar and the patient illustration, remains the same.

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Richard (Dik) Solare

Dik
"I am noticing some red patches and crunchy spots my face... It's been a couple of months at least. Do you know what it is?"

Dik You Dik Replies

Physical Exam

You (Slide Layer)

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Richard (Dik) Solare

You
"Are they itchy or painful?"

Dik You Dik Replies

Physical Exam

Dik Replies (Slide Layer)

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Richard (Dik) Solare

Dik Replies
"No, not really. Just kinda ugly barnacles?"

Dik You Dik Replies

Physical Exam

1.2 Richard's History

Physical Examination

Click on the areas to see certain areas closer

Your Thoughts

Four Years (Slide Layer)

Physical Examination

Four Years Ago

Asymptomatic Charlie (at age 50) agreed to her first screening. Her A1C was 7.7%, confirmed at 7.5% three months later. Diabetes was diagnosed.

Note: If symptoms of hyperglycemia present, only one test is needed for diagnosis. If screening without symptoms, a positive test should be followed up with same type of test for confirmation.

Your Thoughts

Attempts (Slide Layer)

The screenshot shows a slide layer titled "Physical Examination" with a blue header. On the left, there is a vertical sidebar with icons for home, back, forward, and search. A blue silhouette of a human figure is positioned to the left of the main content area. In the top right corner, there is a circular profile picture of a man and a refresh icon. The main content area features a light blue box with the following text:

Click areas

Attempts at Changes

For one year, she insisted on trying lifestyle changes. Her A1C was 7.9% after multiple visits and a dietary referral. You convinced her to try metformin, but could only get to 500 mg twice a day due to nausea. Her A1C after metformin was in the low 7s (e.g., 7.3%).

Below the text box is an orange button labeled "Your Thoughts".

Other Information (Slide Layer)

The screenshot shows a slide layer titled "Physical Examination" with a blue header. On the left, there is a vertical sidebar with icons for home, back, forward, and search. A blue silhouette of a human figure is positioned to the left of the main content area. In the top right corner, there is a circular profile picture of a man and a refresh icon. The main content area features a light blue box with the following text:

Other Information

Cl
ar

It has been 15 years since she stopped smoking.

She has no history of coronary artery disease or renal disease but her last two BP readings were 146/88 and 142/92 with a note to measure next visit.

Below the text box is an orange button labeled "Your Thoughts".

Medications (Slide Layer)

The screenshot shows a digital interface for a 'Physical Examination' slide layer. At the top, a blue header contains the text 'Physical Examination' and a circular profile picture of a man with glasses. On the left, a vertical sidebar includes a 'SCFPCLearn' logo and several icons. A blue silhouette of a human figure is positioned to the left of a light blue text box. The text box is titled 'Medications' and contains the following text: 'Encouraged by her family, Charlie then tried a variety of naturopathic medicines (including apple cider vinegar and bitter melon). She went for labs every six months, continued metformin, but would not consider other medications.' Below the text box is an orange button labeled 'Your Thoughts'.

Physical Examination

Click areas

Medications
Encouraged by her family, Charlie then tried a variety of naturopathic medicines (including apple cider vinegar and bitter melon).
She went for labs every six months, continued metformin, but would not consider other medications.

Your Thoughts

Labs (Slide Layer)

The screenshot shows a digital interface for a 'Physical Examination' slide layer, similar to the one above. The header and sidebar are identical. The blue silhouette of the human figure is positioned to the left of a light blue text box. The text box is titled 'Labs (3 months ago)' and contains the following text: 'A1C: 8.0% (Creatinine: 95umol/L (eGFR 71), no microalbuminuria Lipids: Total cholesterol = 5.7; LDL = 4.1; HDL = 0.9; triglycerides = 3.6 (total cholesterol/HDL ratio 6.3)'. Below the text box is an orange button labeled 'Your Thoughts'.

Physical Examination

Labs (3 months ago)
A1C: 8.0%
(Creatinine: 95umol/L (eGFR 71), no microalbuminuria
Lipids: Total cholesterol = 5.7; LDL = 4.1; HDL = 0.9; triglycerides = 3.6 (total cholesterol/HDL ratio 6.3)

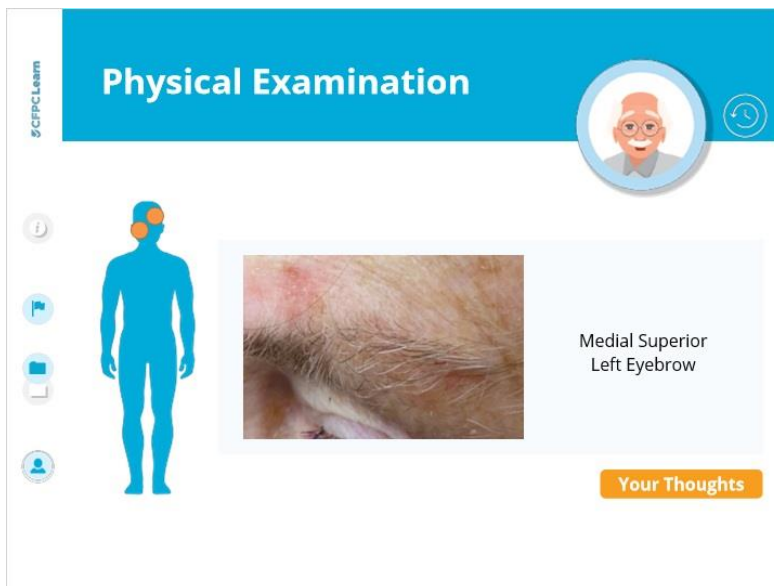
Your Thoughts

Right Cheek (Slide Layer)



The interface features a blue header with the text "Physical Examination" and a user profile icon. On the left, a vertical toolbar contains icons for home, search, and other functions. A blue silhouette of a human body is shown with orange dots on the head and chest. The main content area displays a close-up photograph of the upper right cheek, with the text "Upper Right Cheek" to its right. Below the photo is an orange button labeled "Your Thoughts".

Left Eyebrow (Slide Layer)





The interface features a blue header with the text "Physical Examination" and a user profile icon. On the left, a vertical toolbar contains icons for home, search, and other functions. A blue silhouette of a human body is shown with orange dots on the head and chest. The main content area displays a close-up photograph of the medial superior left eyebrow, with the text "Medial Superior Left Eyebrow" to its right. Below the photo is an orange button labeled "Your Thoughts".

1.3 Given the picture provided, what is your diagnosis?

(Multiple Choice, 10 points, 1 attempt permitted)

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Given the picture provided, what is your diagnosis?



Select one of the answers below



- Keratoacanthoma
- Actinic keratosis
- Psoriasis
- Basal cell carcinoma
- Seborrheic keratoses

Submit

1.4 Question Review

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Review



Answer: Actinic Keratosis

Review
Most Actinic Keratosis (also called Solar Keratosis) are diagnosed clinically. Their features are non-specific: red scaly macules/papules (generally <2cm), in sun-exposed sites. They increase with age.



Additional Biopsy

Proceed

Additional (Slide Layer)

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Review



Answer: Actinic Keratosis

Additional



In one study, 5% of lesions diagnosed by dermatologists as actinic keratosis were squamous or basal cell carcinoma. This suggests low threshold to biopsy, but guidelines state biopsy is generally unnecessary unless lesion is recurrent or suspicious of squamous cell carcinoma (without specifics).

Additional **Biopsy** **Proceed**

Biopsy (Slide Layer)

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Review



Answer: Actinic Keratosis

Learn More

UpToDate recommends Biopsy if: >1 cm, underlying induration, rapidly growing, tender/painful, ulcerated/ bleeding or fail to respond to treatment (e.g. persist/recur 8-12 weeks after liquid nitrogen)

Additional **Biopsy** **Proceed**

1.5 Richard Solare History

Resources

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Dermatoscopes

For Family Physicians

More Information

Click on the other tests to reveal more information.

Moving Forward

Dermatoscopes (Slide Layer)

Resources

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Dermatoscopes

For Family Physicians

More Information

Dermatoscopes

Some family physicians use dermatoscopes (or dermoscopes), small hand-held tools provide magnification and bright light that can reveal characteristics of lesions not visible to the naked eye.

Moving Forward

Dermatoscopes for FPs (Slide Layer)

The slide layer has a blue header with the word "Resources" in white. On the left, there is a vertical sidebar with icons for home, search, and user profile. The main content area features a card with a blue background and white text. The card title is "Dermoscopy for the Family Physician" and it includes a brief description, a URL, and a "Moving Forward" button.

Resources

Dermatoscopes

For Family Physicians

More Information

"Dermoscopy for the Family Physician"

Researched published in 2013 by Dr Marghoob and colleagues. Provides helpful summaries, art and real examples helpful to beginners and intermediates.

<https://www.aafp.org/afp/2013/1001/afp20131001p441.pdf>

Moving Forward

More Info (Slide Layer)

The slide layer has a blue header with the word "Resources" in white. On the left, there is a vertical sidebar with icons for home, search, and user profile. The main content area features a card with a blue background and white text. The card title is "More Information" and it includes a brief description and a URL. A "Moving Forward" button is located at the bottom right of the card.

Resources

Dermatoscopes

For Family Physicians

More Information

More Information

"Dermoscopy" on DermNet NZ. Provides some basic info but also a quiz with many examples of lesions under dermoscopy.

<https://dermnetnz.org/topics/dermoscopy>

Moving Forward

Dixie's OST (Slide Layer)

The slide layer has a blue header with the word "Resources" and a circular profile picture of an elderly man. On the left, there is a vertical sidebar with icons for home, search, and user profile. The main content area contains three buttons: "Dermatoscopes", "For Family Physicians", and "More Information". A light blue text box displays the following information:

Dixie's OST
At two past visits, Ms. Brittle's OST scores were:

At age 55: $75 \text{ (kg)} - 55 \text{ (years)} = 20$
At age 61: $75 \text{ (kg)} - 61 \text{ (years)} = 14$

An orange button labeled "Moving Forward" is located at the bottom right of the text box.

1.6 Richard Solare

The slide layer has a blue header with the name "Richard (Dik) Solare" and a full-body illustration of an elderly man with a cane. On the left, there is a vertical sidebar with icons for home, search, and user profile. The main content area contains a light blue text box with the text:

You continue the conversation with Dik.

Below the text box are two buttons: "You" and "Dik". An orange button labeled "What do you think?" is located at the bottom right of the text box.

You (Slide Layer)

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Richard (Dik) Solare

You
"I think these are Actinic keratosis. They come from sun damage to the skin"

You **Dik**

What do you think?

The screenshot shows a slide layer with a character named Richard (Dik) Solare on the right, an elderly man with a cane. On the left, there is a text box with a user's input. The text box has a close button (X) in the top right corner. Below the text box are two buttons labeled 'You' and 'Dik'. At the bottom right of the slide layer is a yellow button labeled 'What do you think?'. On the far left, there is a vertical toolbar with icons for navigation and interaction.

Dik Replies (Slide Layer)

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Richard (Dik) Solare

Dik
*"Ak-tic care-a,... What?
Is it some kind of skin cancer? Is it going to get worse? Can I still go outside in the sun?"*

You **Dik**

What do you think?


The screenshot shows a slide layer with the same character, Richard (Dik) Solare, on the right. On the left, the text box now displays a reply from the character. The text box has a close button (X) in the top right corner. Below the text box are two buttons labeled 'You' and 'Dik'. At the bottom right of the slide layer is a yellow button labeled 'What do you think?'. On the far left, there is a vertical toolbar with icons for navigation and interaction.

1.7 Which of the following regarding Actinic Keratosis is false?

(Multiple Choice, 10 points, 1 attempt permitted)

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Which of the following regarding Actinic Keratosis is false?



They are usually asymptomatic

Rate of progression to SCC high, 50% per year

They may spontaneously regress


Sun protection is recommended to decrease the incidence of new lesions

They are pre-malignant lesions

1.8 Answer

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Richard (Dik) Solare



Answer: Rate of progression to SCC high, 50% per year

Pre-malignant lesions

Usually asymptomatic

Spontaneously Regress

Sun protection is recommended..

Rate of progression to SCC high, 50% per year


Click on the answers to reveal more information.

Let's Look at More

Pre-Malignant (Slide Layer)

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Richard (Dik) Solare



Answer: Rate of progression to SCC high, 50% per year

- Pre-malignant lesions
- Usually asymptomatic
- Spontaneously Regress
- Sun protection is recommended..
- Rate of progression to SCC high, 50% per year


They are pre-malignant lesions
Actinic keratosis, have cellular atypia that approach those of SCC in situ (see previous for frequency of progression).

Let's Look at More

Asymptomatic (Slide Layer)

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Richard (Dik) Solare



Answer: Rate of progression to SCC high, 50% per year

- Pre-malignant lesions
- Usually asymptomatic
- Spontaneously Regress
- Sun protection is recommended..
- Rate of progression to SCC high, 50% per year


They are usually asymptomatic
Actinic keratosis are usually asymptomatic (unless they become inflamed)

Let's Look at More

Spontaneous (Slide Layer)

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Richard (Dik) Solare



Answer: Rate of progression to SCC high, 50% per year

- Pre-malignant lesions
- Usually asymptomatic
- Spontaneously Regress
- Sun protection is recommended..
- Rate of progression to SCC high, 50% per year


They may spontaneously regress
Actinic keratosis may spontaneously regress - 15%-63% per year

Let's Look at More

Sun Protection (Slide Layer)

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Richard (Dik) Solare



Answer: Rate of progression to SCC high, 50% per year

- Pre-malignant lesions
- Usually asymptomatic
- Spontaneously Regress
- Sun protection is recommended..
- Rate of progression to SCC high, 50% per year


Sun protection is recommended to reduce incidence of new lesions
Actinic keratosis can be prevented. An RCT found patients with actinic keratosis will have 24% less novel actinic keratosis with daily use of sunscreen over 2 years

Let's Look at More

Rate of Progression (Slide Layer)

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Richard (Dik) Solare



Answer: Rate of progression to SCC high, 50% per year

- Pre-malignant lesions
- Usually asymptomatic
- Spontaneously Regress
- Sun protection is recommended..
- Rate of progression to SCC high, 50% per year**

Rate of Progression is not 50% per year X

The rate of yearly progression of Actinic Keratosis to Squamous Cell Carcinoma is low. Progression varies from <0.1% to 20% but the most likely rate is around 0.6% per year. That said, 50-80% of squamous cell carcinoma appear to arise from actinic keratoses.


Let's Look at More

1.9 Multiple choice question

(Multiple Response, 10 points, 1 attempt permitted)

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Select all reasonable first-line options for managing actinic keratosis in family medicine,



Select all that apply.


- 5-fluorouracil cream
- Imiquimod cream
- Cryosurgery
- Diclofenac gel
- Ingenol

Submit

1.10 Answer

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Richard (Dik) Solare



Correct Answers are in Blue

- 5-Fluorouracil Cream
- Imiquimod Cream
- Cryosurgery
- Diclofenac Gel
- Ingenol


Click on the answers to reveal more information.

Let's Look at More

5-FU (Slide Layer)

SCFPCLearn

Richard (Dik) Solare



Correct Answers are in Blue

- 5-Fluorouracil Cream
- Imiquimod Cream
- Cryosurgery
- Diclofenac Gel
- Ingenol


5-Fluorouracil Cream
In a 624 patient multi-centre randomized controlled publicly funded trial. The percentage of patients having $\geq 75\%$ clearance of actinic keratosis at 1 year: 75% 5-Fluorouracil; 54% Imiquimod; 38% MAL-PDT, 29% Ingenol. Adverse event rates were similar between groups.

Let's Look at More

Imiquimod (Slide Layer)

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Richard (Dik) Solare



Correct Answers are in Blue

- 5-Fluorouracil Cream
- Imiquimod Cream
- Cryosurgery
- Diclofenac Gel
- Ingenol


Imiquimod Cream
Previous research, including a 2013 network meta-analysis, also suggested that 5-Fluorouracil is likely superior to other interventions and imiquimod is as good or better than other topical treatment options.

Let's Look at More

Cryosurgery (Slide Layer)

SCFPCLearn

Richard (Dik) Solare



Correct Answers are in Blue

- 5-Fluorouracil Cream
- Imiquimod Cream
- Cryosurgery
- Diclofenac Gel
- Ingenol

Cryosurgery (liquid nitrogen) treatments cure 57% - 98% of clinically evident lesions. Lesion resolution varies with treatment duration: 39% with <5 seconds, 69% with 5-20 seconds, and 83% for >20seconds (from one study).


Continue

Let's Look at More

Diclofenac Gel (Slide Layer)

SCFPCLearn

Richard (Dik) Solare



Correct Answers are in Blue

- 5-Fluorouracil Cream
- Imiquimod Cream
- Cryosurgery
- Diclofenac Gel**
- Ingenol


Diclofenac Gel
Diclofenac (as 3% in a vehicle gel of hyaluronic acid); clearance of Actinic keratosis after 60-90 days was 33-42% versus 10-14% in placebo.

Let's Look at More

Ingenol (Slide Layer)

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Richard (Dik) Solare



Correct Answers are in Blue

- 5-Fluorouracil Cream
- Imiquimod Cream
- Cryosurgery
- Diclofenac Gel
- Ingenol**


Ingenol
There are safety concerns with data suggesting increased skin cancer (6%) compared to imiquimod (2%). It was withdrawn from Canada. Photodynamic therapy (PDT) is red or blue light combined with differing photosensitizing agents. Treatment require referral for specialized equipment at some dermatology offices. Additionally, it appears less effective than 5-fluorouracil and perhaps imiquimod.

Let's Look at More

Cryosurgery 2 (Slide Layer)

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Richard (Dik) Solare



Correct Answers are in Blue

- 5-Fluorouracil Cream
- Imiquimod Cream
- Cryosurgery
- Diclofenac Gel
- Ingenol

Continued X



Increased treatment duration can also increase harms like pain, time to healing, risk of scar, and hypo/hyperpigmentation. Cryosurgery (and excision) can target only clinically evident lesions. Topical treatments also treat lesions not seen with naked eye but are less effective on hyperkeratotic lesions.

Let's Look at More

1.11 Question Review

CFPCLearn

Review



Topical Agents [Learn More](#)

2015 Canadian Algorithm for Actinic Keratosis (AK) treatment recommends



- Isolated Hyperkeratotic AK > Surgery (excision)*
- Isolated non hyperkeratotic AK > Surgery, Cryosurgery (liquid nitrogen), topicals
- Clusters (≥ 4) of AK > Topicals, Cryosurgery (liquid nitrogen) + topicals, Photodynamic Therapy (PDT).

Proceed

Topical Agents (Slide Layer)

SCFPCLearn

Review





Topical Agents			
Intervention	Frequency	Duration	Notes
5% 5-Fluorouracil cream	BID	4 weeks	Stop sooner if superficial erosion
5% Imiquimod cream	3x/week	4 weeks	Apply before bed, wash off in morning
3% Diclofenac in 2.5% hyaluronan gel	BID	60-90 days	Discouraged as least effective

Learn More (Slide Layer)

SCFPCLearn

Review



Topical Agents **Learn More**

Learn More
UpToDate recommends cryosurgery trial for hyperkeratotic lesions.

Proceed

1.12 Richard Solare

SCFPC Learn

Richard (Dik) Solare

Once you review the possible options, including cosmetic appearance or skin irritation during treatment, you discuss it with Dik.

Dik

Let's make a plan

This screenshot shows a slide from an interactive learning module. On the left, there is a vertical toolbar with icons for navigation and interaction. The main content area features the title 'Richard (Dik) Solare' in blue. Below the title is a light blue text box containing a message from 'Dik'. Underneath the text box is a dark blue button labeled 'Dik' and an orange button labeled 'Let's make a plan'. On the right side of the slide, there is a vertical panel with a light blue background, featuring a cartoon illustration of an elderly man with white hair, glasses, and a cane, wearing a grey shirt and dark pants. A speech bubble icon is visible in the top right corner of this panel.

You (Slide Layer)

SCFPC Learn

Richard (Dik) Solare

You
"After reviewing the options, including cosmetic appearance or skin irritation during treatment"

Dik

Let's make a plan

This screenshot shows the same slide as above, but with a different text box. The text box is now orange and contains a message from 'You'. The rest of the slide, including the title, buttons, and the character illustration on the right, remains the same.

Dik Replies (Slide Layer)

CFPC Learn

Richard (Dik) Solare

Dik
"I just want to get rid of the damn things.
I don't really care about the looks."

Dik

Let's make a plan

This slide features a character named Dik, an elderly man with glasses and a cane, standing on a blue background. To his left is a large orange speech bubble containing his dialogue. Below the speech bubble is a dark blue button labeled 'Dik'. At the bottom right of the slide is an orange button labeled 'Let's make a plan'. The slide includes a navigation sidebar on the left with icons for home, back, forward, and search, and a close button (X) in the top right corner of the speech bubble.

1.13 Create a Plan

CFPC Learn

Let's Make a Plan

Using what you have learned write a plan for Dik. It can include any/all of the following: lifestyle intervention(s), prescription intervention(s), lab(s)/test(s) required, follow up appointment time frame, and referral required.

Fill in your plan for the patient here

See how your plan compares

This slide is titled 'Let's Make a Plan' and features a circular profile picture of Dik in the top right corner. Below the title, there is a paragraph of instructions: 'Using what you have learned write a plan for Dik. It can include any/all of the following: lifestyle intervention(s), prescription intervention(s), lab(s)/test(s) required, follow up appointment time frame, and referral required.' Below this text is a large light blue rectangular area for writing the plan, with the text 'Fill in your plan for the patient here' at the top left. At the bottom right of this area is an orange button labeled 'See how your plan compares'. The slide includes a navigation sidebar on the left with icons for home, back, forward, and search, and a close button (X) in the top right corner of the slide.

1.14 Plan Answers

Richard (Dik) Solare

This is the proposed plan for Dixie. How does your plan compare?

Prescriptions
Counselling
Next Appointment

Select details on the left to see suggested recommendations

What's in a name? Back to Day Sheet

Prescriptions (Slide Layer)

Richard (Dik) Solare

This is the proposed plan for Dixie. How does your plan compare?

Prescriptions
Counselling
Next Appointment

Prescriptions (he had multiple non-hyperkeratotic actinic keratosis):

- You prescribe 5% 5-Fluorouracil cream, apply twice a day for 4 weeks.
- He should stop treatment earlier if superficial erosion develops.

What's in a name? Back to Day Sheet

Counselling (Slide Layer)

The screenshot shows a software interface for a patient named Richard (Dik) Solare. The interface includes a vertical sidebar on the left with icons for information, a flag, a list, and a person. The main content area has a title 'Richard (Dik) Solare' and a circular profile picture of an elderly man. Below the title is a question: 'This is the proposed plan for Dixie. How does your plan compare?'. There are three blue buttons: 'Prescriptions', 'Counselling', and 'Next Appointment'. The 'Counselling' button is selected, and a light blue slide layer is open over it. The slide layer contains a circular icon with a speech bubble and the text: 'Counselling You remind him about covering, hats and sunscreen.' At the bottom of the slide layer is a small 'X' icon. At the bottom of the main content area, there is a green button that says 'What's in a name?' and an orange button that says 'Back to Day Sheet'.



Next Appointment (Slide Layer)

The screenshot shows the same software interface for Richard (Dik) Solare. The 'Next Appointment' button is selected, and a light blue slide layer is open over it. The slide layer contains a circular icon with a speech bubble and the text: 'Next Appointment He should return if there are any concerns but if not, he should come back in approximately 3 months for a recheck'. At the bottom of the slide layer is a small 'X' icon. At the bottom of the main content area, there is a green button that says 'What's in a name?' and an orange button that says 'Back to Day Sheet'.

Name (Slide Layer)

CFPC Learn

Richard (Dik) Solare



This is the proposed plan for Dixie. How does your plan compare?

[Prescriptions](#)

[Counselling](#)

[Next Appointment](#)

[What's in a name?](#)

[Back to Day Sheet](#)

Meaning Behind the Name: Dik Solare

Dik is just kid spelled backwards. And solare is from erythema solare for sunburn. There is a belief that much of our sun related skin damage occurs under the age 18, particularly with Sunburns.