





optimabreaststudy.com

# Optimal Personalised Treatment of early breast cancer using Multi-parameter Analysis

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# **OPTIMA** trial organisation



**Funder:** National Institute for Health Research (NIHR) Health Technology

Assessment Programme Health Technology Assessment (HTA) Programme



**Sponsor:** University College London



**Trial Coordination:** Warwick Clinical Trials Unit, University of Warwick



Qualitative Recruitment Study: University of Bristol



# Why do the OPTIMA trial?



- Adjuvant chemotherapy is currently standard practice for patients with ER+ve HER2-ve node positive early breast cancer.
- Many of these patients may gain little extra benefit from chemotherapy in addition to hormonal treatment.
- These patients cannot be reliably identified by conventional pathology.
- Multi-parameter tests may be able predict which patients are likely to benefit from chemotherapy.
- Current evidence is not good enough to safely change clinical practise.
- > OPTIMA aims to prove this and hence allow many patients to avoid chemotherapy safely.

# **OPTIMA** prelim

### Feasibility study



Before embarking on the main OPTIMA study we successfully completed a feasibility study.

- 412 patients were randomised into OPTIMA prelim.
- Chemotherapy decisions were made using Oncotype DX.
  - The test was performed by (Exact Sciences/) Genomic Health Inc. in California.

#### OPTIMA prelim:

- Demonstrated that the main OPTIMA study was acceptable to patients and clinicians.
- Informed the choice of Prosigna as the main trial test technology for chemotherapy decisions.

# **About multi-parameter assays**



- Multi-parameter assays provide information about tumour biology that is more reliable than tumour grade.
  - > Think of as providing a molecular grade.
- Six different tests are widely available in Europe & N. America there is no gold standard!
- Tests provide information about risk of breast cancer recurrence:
  - > Superior to tumour grade for node-negative breast cancer.
  - Work best when combined with clinical data tumour size & nodal status.
- ➤ NICE approved the Prosigna, EndoPredict and Oncotype DX tests to assist chemotherapy decisions for patients without lymph node involvement (DG34 guidelines, December 2018)
  - The main OPTIMA trial uses Prosigna.
- The tests may also predict chemotherapy sensitivity
  - This is the OPTIMA hypothesis.
  - Current evidence supports this, but the case is not proven.

# What is Prosigna?



- Test measures expression of 50 genes (PAM50 gene set)
- Uses specialised equipment highly reliable and reproducible can be performed in any suitably qualified pathology laboratory.
- Prosigna provides:
  - ➤ A numerical "Risk of Recurrence" (ROR) score predicts 10 year risk of metastatic relapse.
  - Intrinsic subtype (luminal A, luminal B, Her2-enriched or basal-like).
- Subtype adds information to ROR score.
  - Almost all ER+ve HER2-ve breast cancers are luminal A/B.
  - About 3-5% are non-luminal these may be less sensitive to hormone therapy

Prosigna® Breast Cancer Prognostic Gene Signature Assay INFORMATION SHEET



- Prosigna is a tumour gene expression signature test. It uses the "PAM50" gene set to generate individualised prognostic information.
- The test can be performed by accredited laboratories in the UK.
- Prosigna provides an estimate of a patient's 10-year risk of distant recurrence and assigns the cancer to an intrinsic subtype (Luminal A, Luminal B, Her2-Enriched, or Basal-like).
- It is approved by NICE to assist chemotherapy decisions for patients with "intermediate risk" node-negative ER+ve HER2-ve tumours.

There is a trial information sheet on Prosigna which gives more detail about the test. You can find this in your Investigator Site File.

# Why Prosigna?



#### Evaluation of alternative multi-parameter tests

- OPTIMA prelim used Oncotype DX to make chemotherapy decisions
  - 6 tests (including Oncotype) were compared in OPTIMA prelim
  - All the tests were shown to provide broadly equivalent risk information for the population
- Prosigna was chosen for the OPTIMA main trial because:
  - Very well validated as prognostic test
  - Can be performed in NHS labs (no overseas samples)
  - Health economics analysis suggests modestly more cost effective than others
- ➤ In OPTIMA prelim 18% of tumours had a "high score" (>25) by Oncotype DX vs. 34% by Prosigna
  - > Patients with high-score tumours are allocated chemotherapy
  - Prosigna is the more conservative test
  - This may be important in node-positive breast cancer

# **OPTIMA Trial hypothesis**



Tumour multi-parameter assays predict chemotherapy sensitivity.

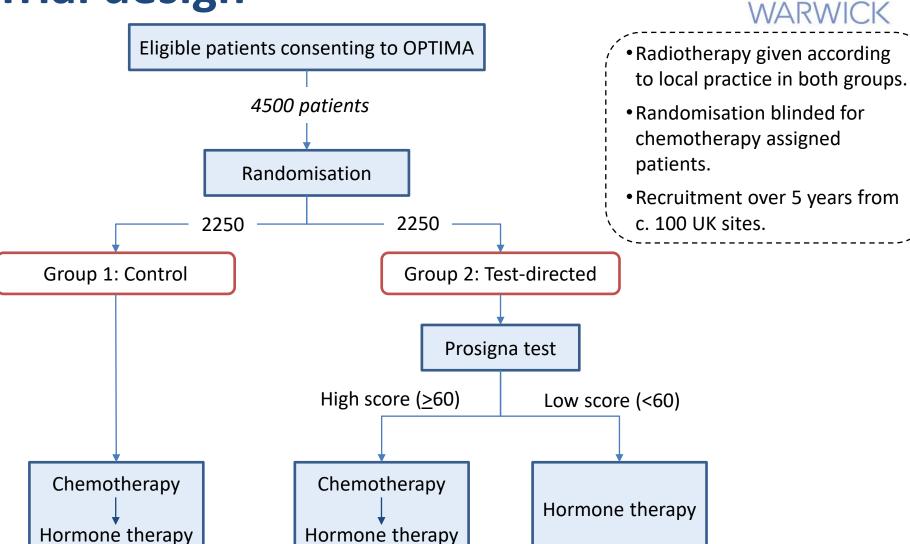
Patients with hormone sensitive primary breast cancers that have a low multi-parameter assay score do not have a meaningful chance of benefiting from adjuvant chemotherapy despite other factors that may predict for a high risk of disease recurrence.

# **Trial objectives**



- ➤ To identify a method of selection that reduces chemotherapy use for patients with hormone sensitive primary breast cancer without detriment to recurrence and survival.
- ➤ To establish the cost-effectiveness of test-directed treatment strategies compared to standard practice

# Trial design



# Primary outcome measures



- Invasive Breast Cancer Survival (IBCFS): non-inferiority of testdirected chemotherapy treatment and endocrine therapy compared to chemotherapy followed by endocrine treatment
  - IBCFS includes all loco-regional recurrence of invasive breast cancer, contralateral new invasive breast cancer, metastatic disease, death from breast cancer, death from all other causes
- Cost effectiveness evaluation of protocol specified multiparametric assay driven treatment against standard clinical practice

# Secondary outcome measures



- Invasive Breast Cancer Free Survival for patients with low-score tumours (key secondary endpoint)
- ➤ Recurrence Free Interval (RFI), Invasive Breast Cancer Free Survival (IDFS) and Distant Recurrence Free Interval (DRFI)
- Breast Cancer Specific Survival (BCSS) and Overall Survival (OS)
- Health Resource Use and Quality of Life as measured by EQ-5D and FACT-B
- Patient compliance with long-term endocrine therapy

### **Inclusion criteria**



- ✓ Female or male age ≥ 40
- ✓ Excised invasive breast cancer
- ✓ ER positive with >10% staining and HER2 negative.
- ✓ Tumour size and axillary lymph node status of either:
  - √ 4-9 lymph nodes involved AND with any invasive tumour size
  - ✓ 1-3 nodes involved, at least 1 nodes containing a macrometastasis (i.e. deposit >2mm diameter) AND with any invasive tumour size
  - √ 1-3 lymph nodes involved with micrometastases only (i.e. deposit >0.2-2mm diameter) AND invasive tumour size ≥20mm
  - ✓ Node negative AND tumour size ≥ 30mm

Note: Nodes containing isolated tumour cell clusters (ITC) only (i.e. deposit ≤0.2mm diameter) will be considered to be uninvolved.

Note: Involvement of lymph nodes with macrometastases or micrometastases may be determined either by histological examination or by OSNA or equivalent PCR-based assay.

#### **Inclusion criteria**



- Considered appropriate for adjuvant chemotherapy by the treating physician.
- ✓ Patient must be fit to receive chemotherapy and other trial-specified treatments with no concomitant medical, psychiatric or social problems that might interfere with informed consent, treatment compliance or follow up.
- ✓ Multiple ipsilateral cancers are permitted provided at least one tumour fulfils the tumour size and axillary node entry criteria and none meet any of the exclusion criteria.

NOTE: refer to section 10.2 of the protocol for guidance on selection of tumour blocks to be sent to the Central Laboratory

### **Inclusion criteria**



- ✓ Bilateral cancers are permitted provided the tumour(s) in one breast meets the eligibility criteria and the contralateral tumour is not ER negative/low-positive (≤10% staining) and/or HER2 positive and is not clinically significant, defined by both of the following:
  - i. The contralateral tumour does not meet the tumour size and lymph node eligibility criteria for trial entry, i.e. the following are not acceptable: presence of lymph node macro-metastases; presence of lymph node micrometastases if tumour size ≥20mm; tumour size ≥30mm if no lymph node involvement.
  - ii. The treating physician does not consider that the characteristics of the contralateral tumour alone justify consideration of adjuvant chemotherapy.
- ✓ Short term pre-surgical treatment with endocrine therapy including in combination with non-cytotoxic agents is allowed providing that the duration of treatment does not exceed 8 weeks.
  - NOTE: a pre-treatment core biopsy should be sent to the Central Laboratory; a sample from a surgical excision or other on-treatment biopsy is not acceptable. Further guidance in section 10.2 of the protocol
- ✓ Informed consent for the study

### **Exclusion criteria**



X ≥10 involved axillary nodes or involvement of any of internal mammary, supraclavicular and infraclavicular lymph node.

NOTE - Internal mammary lymph nodes identified by anatomical imaging studies alone will be considered uninvolved where the diameter is <10mm.

- X ER negative / low-positive OR HER2 positive/amplified.
- Metastatic disease. NOTE Formal staging according to local protocol is recommended for patients where there is a clinical suspicion of metastatic disease or for stage III disease (tumour >50mm with any nodal involvement OR any tumour size with 4 or more involved nodes).
- X Previous diagnosis of malignancy unless:
  - managed by local treatment only AND disease-free for 10 years.
  - ductal carcinoma in situ (DCIS) or pleomorphic lobular carcinoma in situ (pleomorphic LCIS) of the breast managed by local treatment only; treatment with anti-oestrogens is not permitted.
  - any other in situ carcinoma as defined by the International Classification of Diseases for Oncology (ICD-O) including basal cell carcinoma of skin and cervical intraepithelial neoplasia.
     NOTE: Isolated classical type lobular carcinoma in situ (LCIS) is not considered in this context to be a diagnosis of malignancy.

### **Exclusion criteria**



- X Pre-operative anti-cancer treatments except short-term endocrine therapy administered as per the inclusion criteria.
- X Adjuvant systemic treatment commenced prior to trial entry\* except endocrine therapy, which must be discontinued prior to starting trial-allocated chemotherapy.
- X Treatment with agents, including ovarian suppression, known to influence breast cancer growth but prescribed for other indications within one year of trial entry\* except as follows
  - Use of oestrogen replacement therapy (HRT) provided this is stopped before surgery.
  - ii. Drugs administered for in vitro fertilization or fertility preservation.
  - iii. Use of hormonal contraception.

<u>NOTE</u>: The use of topical vaginal oestrogen preparations is not restricted.

\*Trial entry is defined as the date of informed consent.

#### **Exclusion criteria**



- Trial entry\* and randomisation more than 12 weeks after completion of breast cancer surgery. Trial entry should ordinarily be within 8 weeks of final surgery.
   \*Trial entry is defined as the date of informed consent.
- X Planned further surgery for breast cancer, including axillary surgery, to take place after randomisation, except either re-excision or completion mastectomy for close or positive/involved margins which may be undertaken following completion of chemotherapy if given.

NOTE: The timing of radiotherapy to the axilla for lymph-node involvement is not restricted.

### Understanding the ER eligibility criteria



- OPTIMA excludes ER low-positive tumours, defined as having 1-10% +ve staining.
- There are several methods of reporting ER status. Allred (or Quick) Score and H-Score combine %staining and staining intensity

#### Understanding Allred score

Add -		% staining	0.1%-1%	>1%-10%	>10%-33%	>33%-67%	>67%-100%
		score	1	2	3	4	5
		Staining intensity		weak	moderate	strong	Result = 0 or 2-8
		score		1	2	3	

- All tumours with an Allred Score of 3 or less are ineligible. All tumours with scores 6-8 are eligible but for scores 4 or 5, you need to know %staining for eligibility.
- We are now asking sites to report %staining for all tumours



Activities prior to randomising



Randomise participant



Send tissue sample(s) to central lab



Prosigna testing
(for those randomised to testdirected treatment)



Notification of treatment allocation



Commence adjuvant treatment

# **Patient pathway**



- Patients usually approached at first oncology consultation.
- Avoid giving patients pre-conceptions about their adjuvant treatment, as these perceptions can be difficult to overcome once made.
- Promote awareness amongst local team that site participating in OPTIMA.
- Preliminary information sources for potential participants
  - Patient Flyer & Clinic Poster
  - OPTIMA website: <u>optimabreaststudy.com</u>



Activities prior to randomising



Randomise participant



Send tissue sample to central lab



Prosigna testing
(for those randomised to testdirected treatment)



Notification of treatment allocation



Commence adjuvant treatment

#### **Informed consent**

#### - information phase



# Information Phase

- Confirm eligibility
- Approach potential participant in clinic or during telephone or video consultation
- Discuss study in detail
- Provide patient with written information sheet in person or by post / email
- PIS may be sent out in advance of consultation.
- Opportunity for questions



TIME FOR CONSIDERATION
(Recommendation is at least 24hrs)

Consenting Phase



Activities prior to randomising



Randomise participant



Send tissue sample to central lab



Prosigna testing (for those randomised to testdirected treatment)

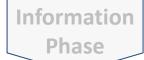


Notification of treatment allocation



Commence adjuvant treatment

#### **Consenting phase**







ALLOW TIME FOR CONSIDERATION (Recommendation is at least 24hrs)

# Consenting Phase

- Answer any further questions
- Participant initials each item on the consent form, signs & date.
- Participant may complete the CF in clinic **OR** remotely.
- If CF is completed remotely, participant takes original to clinic or sends by post to named individual.
- Alternatively participant may scan/ photograph CF and send electronically e.g. to approved email.
- Investigator\* countersigns & dates the consent form.
- Specific procedure for countersigning a photographic copy of consent form – refer to protocol.
- In all cases, investigator who countersigns the consent form must be satisfied that consent is genuine.

\*PI/or designee with consent role assigned in the Delegation Log



Activities prior to randomising



Randomise participant



Send tissue sample to central lab



Prosigna testing (for those randomised to testdirected treatment)



Notification of treatment allocation



Commence adjuvant treatment

#### Remote verbal consent





Information Phase



Allows participant to give initial verbal consent during telephone or video consultation for convenience, e.g. to avoid delays.

**Limited scope**: allows randomisation and completion of pre-treatment allocation processes only.

#### Consenting **Phase**

- Answer any further questions.
- Participant states intention to join study.
- Investigator\* identifies likely delay in completion of written consent process and offers verbal consent; participant agrees.
- Investigator\* completes the Documentation of Remote Verbal Consent form.
- Once written consent has been received, this should be countersigned whenever possible by the investigator who received verbal consent.

\*PI/or designee with consent role assigned in the Delegation Log



Activities prior to randomising



Randomise participant



Send tissue sample to central lab



Prosigna testing (for those randomised to test-directed treatment)



Notification of treatment allocation



Commence adjuvant treatment

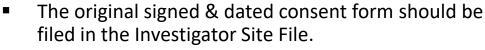
#### **Processing consent**





Consenting
Phase

# **Processing Consent**



- The Documentation of Remote Verbal Consent form should also be filed in the Investigator Site File if relevant.
- Copies (paper or electronic) of all consent documents must be given/ sent to patient.
- Patient participation must be recorded in medical notes.
- Send GP letter.
- Consent forms must not be sent to Trial Office





Activities prior to randomising



Randomise participant



Send tissue sample to central lab



Prosigna testing (for those randomised to test-

directed treatment)



Notification of treatment allocation



Commence adjuvant treatment

### **Before randomisation**



✓ Confirm eligibility	Complete Eligibility Form (CRF 1)
✓ Obtain Informed Consent	Complete the appropriate <i>Consent Form</i> (as per previous slides)
✓ Confirm stratification information	Complete Randomisation Form (CRF 2)
✓ Plan Chemotherapy	From permitted chemotherapy regimens
✓ Plan endocrine therapy (if pre-menopausal)	Do you intend to treat with AI or tamoxifen?
✓ Plan CDK 4/6i therapy	Do you intend to treat with abemaciclib?
<ul><li>✓ Administer Patient Questionnaire Booklet</li></ul>	Quality of Life Health Resource Use questions
✓ Take medical history	Complete Baseline Details Form (CRF 3)





CLINICAL TRIALS UNIT

# Activities prior to randomising



Randomise participant



Send tissue sample to central lab



Prosigna testing

(for those randomised to testdirected treatment)



Notification of treatment allocation



Commence adjuvant treatment

- Telephone Warwick Clinical Trials Unit Randomisation Service.
  - Telephone number found on the form and in the protocol
- The Randomisation officer will ask you to confirm the information documented on the Randomisation Form (CRF 2)

- At the end of the call you will be given a 4 digit Participant Trial Number
  - This is often referred to as a 'TNO'



Activities prior to randomising



Randomise participant



Send tissue sample to central lab



Prosigna testing

(for those randomised to testdirected treatment)



Notification of treatment allocation



Commence adjuvant treatment

### **Randomisation form**



Information required at randomisation:

- Site + participant details and confirmation of eligibility
- > Type of consent given (Written vs Remote Verbal Consent)
  - When participant has given Remote Verbal Consent, CRF 2a must be completed prior to treatment allocation.
- Stratification variables
  - Tumour size
  - Number of involved nodes
  - Histological grade
  - Menopausal status
- Planned treatment
  - Intended chemotherapy regimen (a stratification variable)
  - If pre-menopausal, intent to treat with AI or tamoxifen
  - Intent to treat with adjuvant abemaciclib or not (a stratification variable)



#### Activities prior to randomising



#### Randomise participant



#### Send tissue sample to central lab



#### Prosigna testing

(for those randomised to testdirected treatment)



Notification of treatment allocation



Commence adjuvant treatment

# Diagnostic tissue blocks



- Following randomisation a tissue block should be sent within 3 working days.
- Site pathologist selects a representative tissue block from the surgical resection (SOP provided).
- Site completes the Tissue Transit Form
  - Includes details of invasive tumour size and number of involved nodes; information included in Prosigna test result.
  - Must be completed by a trial investigator or pathologist who is a member of the breast MDT.
- Site transmits the Tissue Transit Form, and copies of all applicable anonymised histology reports, to the OPTIMA trial office.
- Site packages tissue block, include the Tissue Transit Form (retain a copy for site file), copies of applicable anonymised histology reports and send to the Central Laboratory. (Packaging provided and postage paid for by trial.)
- Email to site to confirm arrival of tissue block at central lab.



Activities prior to randomising



Randomise participant



Send tissue sample to central lab



Prosigna testing

(for those randomised to testdirected treatment)



Notification of treatment allocation



Commence adjuvant treatment

### Redaction



All pathology reports which are sent to the OPTIMA trial office and the central lab must be fully redacted of patient identifiable data (PID).

- Please make sure participant TNO and initials are written on each page
- Check there is no PID within the body of the report as well as header
- Un-redacted reports will be recorded as a protocol violation

#### Permitted data items

- ➤ Date of Birth This is PID but required as source data for sample tracking and matching pathology reports and tissue transit forms to the correct patient
- ➤ Lab number not PID

#### Must be redacted

> Participant Name, Address, Hospital Number, NHS Number



### Activities prior to randomising



Randomise participant



Send tissue sample to central lab



#### Prosigna testing

(for those randomised to testdirected treatment)



Notification of treatment allocation



Commence adjuvant treatment

#### **Tumour Block Selection**

If in doubt ask!



Patients who have received pre-operative endocrine treatment

➤ a pre-treatment core biopsy should be selected. NOTE: A tumour block from a surgical excision or other ontreatment biopsy is <u>not</u> acceptable: treated tumours are likely to have a lower Prosigna Score which could affect treatment allocation.

#### Patients with a unifocal tumour

a representative tumour block should be selected

#### Patients with multiple ipsilateral tumours

Blocks from more than one lesion should be submitted when they are considered clinically significant by the referring site and interpreted as synchronous primary cancers

NOTE: Involved lymph nodes are not suitable for trial-specified laboratory investigation

#### L

Activities prior to randomising



Randomise participant



Send tissue sample to central lab



Prosigna testing (for those randomised to testdirected treatment)



Notification of treatment allocation



Commence adjuvant treatment

#### **Non-luminal tumours**



- Patients with non-luminal tumour subtypes identified by Prosigna testing will have central confirmation of receptor status.
- Most of these are expected to be high-score tumours correctly identified as ER positive & HER2 negative
- A few tumours will be ER negative/ low-positive or HER2 positive/amplified on re-testing.
- These tumours are ineligible sites will be notified.
- Patients with ineligible tumours should be treated appropriately for the tumour characteristics.
- Patients remain in OPTIMA and will continue with trial follow-up.



Activities prior to randomising



Randomise participant



Send tissue sample to central lab



Prosigna testing (for those randomised to testdirected treatment)



Notification of treatment allocation



Commence adjuvant treatment

# Testing & treatment allocation



#### **TEST-DIRECTED ARM**

- Central lab receives sample
- Sample assessed for invasive tumour content
- Prosigna test performed
- Prosigna test results reported to OPTIMA trial office
- OPTIMA trial office notify site of participant's treatment allocation

#### STANDARD/CONTROL ARM

- Central lab receives sample
- Sample assessed for invasive tumour content
- Sample stored

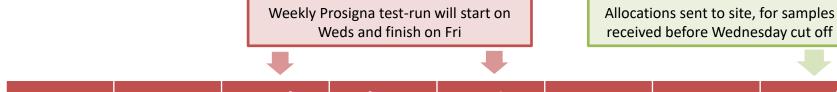
OPTIMA trial office notify site of participant's treatment allocation

TIME FROM RANDOMISATION TO NOTIFICATION OF TREATMENT ALLOCATION IS 2-3 WEEKS

For patients allocated to chemotherapy, randomisation is blinded from sites

# Understanding the lab timetable





MonTuesWedsThursFriSatSunMon\*

\*Unexpected delays are always possible. WCTU will keep sites updated if these occur.

Tissue samples received at central lab by midday Weds will be included in that week's test run

Treatment allocation will be sent to site on Monday am\*: turnaround within 7 days

Tissue samples received <u>after</u> midday Wed will be included in the following week's test run

Held over to following week's run: turnaround within 14 days

- Other factors that may impact the timeline:
  - Test failure (estimate 2%): repeat following week
  - Additional tests required (ER, HER2 confirmation for tumours with non-luminal Prosigna subtype, estimate 4%)
- Trial office will introduce balanced delays to notification of treatment allocation for control arm patients: you cannot assume a delay means that the patient is in the test-directed arm



Activities prior to randomising



Randomise participant



Send tissue sample to central lab



Prosigna testing
(for those randomised to testdirected treatment)



Notification of treatment allocation



Commence adjuvant treatment

### Before treatment allocation

CLINICAL TRIALS UNIT

✓ Eligibility check	WCTU will check all paperwork and ensure that the patient meets the eligibility based on their tumour
✓ Block processing	HSL-AD will process the tumour block(s) and check all paperwork to ensure that the tumour is acceptable for OPTIMA
✓ Confirm consent	WCTU will confirm the type of consent received. Full written consent must be received before allocation can be released. Site should complete Confirmation of Written Consent Form (CRF 2a) prior to allocation, if required.



Activities prior to randomising



Randomise participant



Send tissue sample to central lab



Prosigna testing (for those randomised to testdirected treatment)



Notification of treatment allocation



Commence adjuvant treatment

#### After treatment allocation



Once all check have been completed, and all queries resolved, allocation will be processed by WCTU.

Allocations are automatically emailed to Site and can be sent to anyone on the Delegation log as required.

Allocations are always sent to:

- Randomising Investigator
- Person who made the Randomisation phone call
- Main Site Contact (as per the delegation log)



Activities prior to randomising



Randomise participant



Send tissue sample to central lab



Prosigna testing (for those randomised to testdirected treatment)



Notification of treatment allocation



Commence adjuvant treatment

# Tissue banking



- The OPTIMA team is committed to further research to develop and improve multi-parameter assays.
- Tissue blocks for all patients will be stored in the OPTIMA Tissue Bank.
- The stored tissue block will be returned on request in the event that the treating site needs it for diagnostic use.
- Prosigna testing on stored tumour samples from patients randomised to the control arm is planned to allow outcome analysis for patients with low-score tumours. This is very important information for clinicians.
- Intended research includes undertaking additional multi-parameter testing on stored samples to allow evaluation of these tests in predicting outcome.

# Surgery



#### **Before Trial Entry:**

Activities prior to randomising



Randomise participant



Send tissue sample to central lab



Prosigna testing (for those randomised to testdirected treatment)



Notification of treatment allocation



Commence adjuvant treatment

Before trial entry appropriate surgery should be performed according to local guidelines

All planned axillary surgery must be completed before trial entry

#### **Following Trial Entry:**

Re-excision of margins or completion mastectomy permitted following trial entry



Activities prior to randomising



Randomise participant



Send tissue sample to central lab



Prosigna testing
(for those randomised to testdirected treatment)



Notification of treatment allocation



Commence adjuvant treatment

# Chemotherapy



- Chosen from a list of permitted regimens. CLINICAL TRIALS UNIT
- Intended regimen must be stated at randomisation.
- Chemotherapy is recommended to be started within 2 weeks of treatment allocation.
- Important to reassure the patient that waiting this amount of time will <u>not</u> have any detrimental effects on their health or outcome.
- Treatment and monitoring according to local guidelines.

PERMITTED REGIMENS							
✓ FEC75-80	✓ (F)EC-T						
✓ FEC90-100	✓ AC-T						
✓ EC90-100	✓ TAC						
✓ E-CMF	✓ (F)EC-P						
✓ TC	✓ AC-P						
	✓ Dose dense AC/EC-P						



Activities prior to randomising



Randomise participant



Send tissue sample to central lab



Prosigna testing
(for those randomised to testdirected treatment)



Notification of treatment allocation



Commence adjuvant treatment

# **Endocrine therapy**



- Endocrine therapy is recommended to be started no later than:
  - 2 weeks from treatment allocation in patients assigned to no chemo
  - 4 weeks after day 1 of the final cycle of chemo for all other patients
- The endocrine therapy a participant is given is based on the patient's gender and for women their menopausal status at the time of trial entry (i.e. consent), not when hormone therapy is initiated.
- The recommended duration of endocrine therapy is 10 years for all patients.



Activities prior to randomising



Randomise participant



Send tissue sample to central lab



Prosigna testing (for those randomised to testdirected treatment)



Notification of treatment allocation



Commence adjuvant treatment

# **Endocrine therapy**



#### Initial treatment period (years 0-5)

#### Male:

> Tamoxifen

#### Postmenopausal at trial entry:

Aromatase inhibitor. Tamoxifen may be given where there is a contraindication to aromatase inhibitor therapy.

#### Premenopausal at trial entry:

- Tamoxifen or an aromatase inhibitor. (Investigators must declare treatment intent at randomisation.)
- ➤ Participants should also undergo ovarian suppression e.g. with a Gonadotropin-releasing hormone (GnRH) agonist.



Activities prior to randomising



Randomise participant



Send tissue sample to central lab



Prosigna testing
(for those randomised to testdirected treatment)



Notification of treatment allocation



Commence adjuvant treatment

# **Ovarian Suppression**



All women who are pre-menopausal at trial entry should be treated with ovarian suppression for at least 3 years

- Optimal treatment
- Ensures balance between trial arms.

#### **Treatment options:**

- Licensed GnRH agonist, such as goserelin 3.6mg s.c. monthly or leuprorelin acetate 11.25mg s.c. 3-monthly for at least 3 years.

  N.B. refer to protocol guidance for monitoring GnRH agonist & AI combination
- Bilateral surgical oophorectomy Radiation menopause is not permitted.

#### **Deferred initiation of GnRH agonists:**

- Post chemotherapy amenorrhoea is common in older women. In many but not all cases this will be permanent.
- ➤ GnRH agonist treatment may be deferred for patients with amenorrhoea but should be initiated in the event of resumption of menses up to 2 years from trial entry

# **Endocrine therapy**



## Activities prior to randomising



Randomise participant



Send tissue sample to central lab



Prosigna testing
(for those randomised to testdirected treatment)



Notification of treatment allocation



Commence adjuvant treatment

#### **Extended treatment period (years 6-10)**

As the OPTIMA population is considered to be at high risk of late relapse, all patients are advised extended adjuvant endocrine therapy for a further 5 years to a total of 10 years as follows:

Male: Tamoxifen

Female: Aromatase inhibitor or tamoxifen

For women who were deemed premenopausal at trial entry, if considering switching from tamoxifen to an aromatase inhibitor at 5 years, the patient's menopausal status needs to be confirmed at this stage as postmenopausal.

There is detailed guidance in the protocol regarding the determination of menopausal status in women receiving antioestrogen treatment.



Activities prior to randomising



Randomise participant



Send tissue sample to central lab



Prosigna testing
(for those randomised to testdirected treatment)



Notification of treatment allocation



Commence adjuvant treatment

# Adjuvant CDK 4/6 inhibitors



CDK4/6 inhibitors (currently only abemaciclib) may be prescribed concurrently with endocrine therapy according to licence.



## Activities prior to randomising



#### Randomise participant



### Send tissue sample to central lab



# Prosigna testing (for those randomised to testdirected treatment)



#### Notification of treatment allocation



## Commence adjuvant treatment

## Adjuvant bisphosphonates



- Adjuvant bisphosphonate treatment is associated with a survival benefit.
- Benefit seen in postmenopausal women and those who become postmenopausal as a result of their treatment.
- All OPTIMA patients are eligible for treatment with a bisphosphonate (either postmenopausal at trial entry or treated with ovarian suppression if pre-menopausal).
- It is <u>recommended</u> that patients in the OPTIMA trial receive bisphosphonate treatment (oral or intravenous) for 2-5 years according to NICE guidelines.
- To avoid potential treatment imbalance, sites should ensure bisphosphonate treatment is the same for all patients irrespective of treatment allocation (i.e. whether the patient is receiving chemotherapy or not).

# Follow-up



- Annual follow-up to 10 years
- Annual Follow-up Case Report Form to be completed
- Follow-up can be carried out in clinic.
- Telephone follow-up is permitted for patients who have been discharged from clinical review.
- Follow-up by e-mail is permitted if this is permitted by site's local information governance policies.
- At 12 and 24 months administer OPTIMA Patient Questionnaire Booklet.







## QoL and health resource use



- Patient Questionnaire data is key to the outcomes of OPTIMA in terms of patient acceptability (QoL data) and cost effectiveness (health resource use)
- QoL and health resource use data is collected via Patient Questionnaire Booklets which are completed at the following time-points:
  - Baseline
  - 3 months after trial entry
  - 6 months after trial entry
  - 12 months after trial entry
  - 24 months after trial entry

At all time-points except baseline can be completed either in clinic, by post or telephone if not standard practice to see patient in clinic at this time point.

<sup>\*</sup>Trial entry defined as date of informed consent

## **Patient withdrawal**



- Patients can withdraw from the trial at any time
- Withdrawal of patients should be communicated to the OPTIMA Trial Office as soon as possible and a Withdrawal CRF completed.
- Patients who move away from the area should not automatically be withdrawn from the trial. Transfer to another site or telephone follow-up is permitted.
- If a patient declines to follow their trial allocated treatment or ceases treatment early, this patient should not be withdrawn. Treatment, follow-up and quality of life data should be collected unless patient explicitly forbids further data from being collected.

# **Compatible Trials**



Patients randomised into OPTIMA can also take part in the following trials:

- POETIC-A (patients treated with pre-operative AI in the registration phase who do <u>not</u> proceed to randomisation are eligible)
- Radiotherapy trials
- Non-randomised trials
- We maintain a list of compatible trials on the OPTIMA website
- Please check with the trial office if you are in doubt. In general anything that does not involve drug treatment is allowed.

# PI responsibilities



- For the conduct of the trial at their site.
- To nominate appropriately experienced staff to assist in the recruitment and follow-up of participants.
- To maintain a Site Signature and Delegation Log documenting the roles and responsibilities of site staff.
- Make sure Good Clinical Practice (GCP) training for all staff is up to date
- To conduct of the trial in compliance with the protocol.
- To document and explain any deviation from the protocol.
- For all trial-related medical decisions.
- To ensure informed consent is obtained and documented according to GCP.
- Ensure accuracy, completeness, legibility and timeliness of the data reported on CRFs.
- Maintenance of Investigator Site File.
- Provisions for archiving essential documents.
- > PLEASE NOTE: No expedited SAE reporting for OPTIMA

# The OPTIMA Challenge



- OPTIMA offers the <u>only</u> chance of generating robust evidence for the chemotherapy predictive hypothesis.
- OPTIMA needs to recruit 4500 patients to answer the question
  - Non-inferiority trials need to recruit a lot of patients
- To achieve this, sites need to recruit at least 1 patient per month
- Most sites need to offer OPTIMA to at least 2 patients per month
  - Not everybody asked will join OPTIMA.



Image courtesy of UCL Health Creatives

# Recruiting to OPTIMA -Qualitative Recruitment Study (QRS)



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Journal List > Trials > v.17; 2016 > PMC4898358

# **Trials**

Trials. 2016; 17: 283.

Published online 2016 Jun 8. doi: 10.1186/s13063-016-1301-4

PMCID: PMC4898358

PMID: 27278130

Optimising recruitment and informed consent in randomised controlled trials: the development and implementation of the Quintet Recruitment Intervention (QRI)

Jenny L. Donovan, Leila Rooshenas, Marcus Jepson, Daisy Elliott, Julia Wade, Kerry Avery, Nicola Mills, Caroline Wilson, Sangeetha Paramasivan, and Jane M. Blazeby

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Recruitment lower/ slower than expected







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- Disrupts routine practice
- Relies on unusual concepts
- AltersDr/patientrelationship

Recruitment lower/ slower than expected



# Cultivate a united team approach

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#### **Essential for:**

- Identifying eligible patients
- Preparing patients for OPTIMA discussion – consistent message

Patients will have established trust in their surgeon and breast care nurse and what they say.

#### Top tip:

Agree who is going to say what and when to patients about adjuvant chemotherapy and OPTIMA



# **Preparing the team**



CLINICAL TRIALS UNIT



#### The OPTIMA Guide for Breast Nurse Specialists

#### optima

#### **Breast Nurse Specialists and OPTIMA**

OPTIMA is a randomised controlled trial designed to find out if a multi-parameter test can effectively and safely identify if a patient is likely to benefit from adjuvant chemotherapy or not. OPTIMA uses the Prosigna test.

Recruitment to OPTIMA is a team activity relying on: surgeons, breast nurse specialists, pathologists, oncologists, research nurses and trial co-ordinators.

Breast nurse specialists build trusting relationships with patients and often patients will look to them for guidance about what will happen following surgery. What you and your surgical colleagues say to a patient about adjuvant treatment, can shape patient expectations and in turn, recruitment to OPTIMA.

This guide summarises the study and offers tips for preparing eligible patients for a discussion about

#### The Study

OPTIMA aims to identify patients most likely to benefit from chemotherapy and those who may be better treated by moving directly to hormone therapy.

OPTIMA expects to recruit mostly patients with nodepositive (including micrometastatic) disease because this is where there is greatest uncertainty. Nodenegative patients can participate if Oncotype DX or other tests are not used.

Multi-Disciplinary Teams will identify patients with ER-positive HER2-negative early breast cancer that would ordinarily be treated with chemotherapy and who meet the eligibility criteria. Oncologists will explain the study to eligible patients and invite them to join OPTIMA.

OPTIMA randomises eligible participants between standard treatment (chemotherapy followed by endocrine therapy) or to have a Prosigna test performed on the turnour. If the turnour has a high Prosigna Score (>60) then the patient will be assigned to standard treatment whilst those with a lower score receive endocrine therapy only. Patients receiving chemotherapy are blinded to the reason (randomised to control are no high Prosigna test score). An estimated two thirds of paties whose tumours are tested will avoid chemotherapy.

The Prosigna test is performed on fixed tissue in a UKbased lab. The test takes less than 2 weeks from consent for the majority of patients. See the diagram overleaf for more information on study design.

#### Introducing OPTIMA to Patients

When preparing patients for an oncology appointment it would be helpful to flag up that part of that conversation will include a discussion about a clinical study – OPTIMA. Here is a suggestion for how you might do this:

The oncologist will talk with you about further treatment. This will include a conversation about a study (called OPTIMA) to see whether you're likely to benefit from chemotherapy, as not all patients do.

Please avoid presenting chemotherapy as a definite as this can create an expectation of treatment. It may then be difficult for the oncologist to introduce the study concept and the idea that they may not get chemotherapy.

#### **OPTIMA Patient Information Flyer**



optima

Working with patients, the OPTIMA team have produced a patient information fiver to introduce an open perser patients for a fuller discussion with an oncologist about OPTIMA. The fiver is in addition to the patient information sheet.

We ask that you hand it out at post-surgical appointments to patients flagged by the MDT as potentially eligible for OPTIMA.



# **Preparing the Patient**



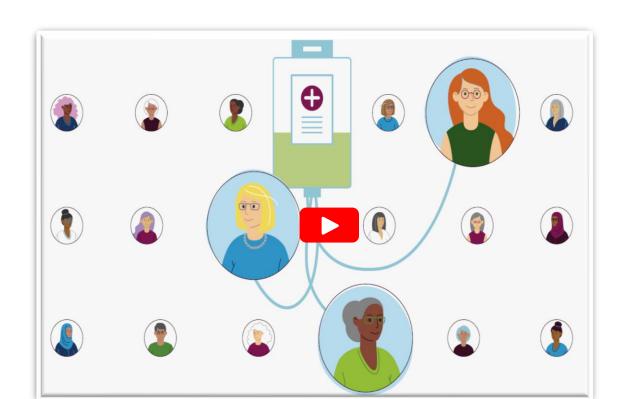








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# OPTIMA Patient Animation

**OPTIMA** website





1. Mention OPTIMA early on – can then return to it





- Mention OPTIMA early on
- Large international study 111+ centres across UK and Norway
  - NHS funding body (NIHR) important question to NHS
    - Part of something big!





- 1. Mention OPTIMA early on can then return to it
- 2. Lead on benefit of hormone therapy and contrast with uncertainty of chemotherapy benefit for all patients

"You are definitely somebody who would benefit from hormone treatment, and that's likely to be one of the most important parts of your treatment. But what is much more difficult to know is whether you would benefit from chemotherapy as well."





- 1. Mention OPTIMA early on can then return to it
- Lead on benefit of hormone therapy and contrast with uncertainty of chemotherapy benefit for all patients
- 3. Give the rationale for OPTIMA improve decision making to better target the use of chemotherapy

"We know it's a hormone sensitive cancer because we do a test on the tumour that says it's hormone sensitive [...] What we would really like to have is a test [...] to see if it's a chemo-sensitive tumour-because not all tumours are."



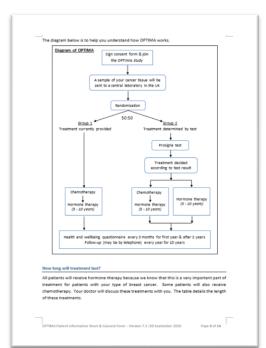


1. Mention OPTIMA early on – can then return to it

2. Lead on benefit of hormone therapy and contrast with uncertainty of

chemotherapy benefit for all patients

- 3. Give the rationale for OPTIMA -
- 4. Run through what happens when a patient joins the study, many find the diagram in the PIS a helpful tool.







- 1. Mention OPTIMA early on can then return to it
- 2. Lead on benefit of hormone therapy and contrast with uncertainty of chemotherapy benefit for all patients
- 3. Give the rationale for OPTIMA -
- 4. Set out what happens when a patient joins the study many find the diagram in the PIS a helpful tool
- 5. Be clear about what is being randomised i.e.

chemotherapy as SoC v test directed chemotherapy

(the patient is not being randomised to chemotherapy v no chemotherapy)





- 1. Mention OPTIMA early on can then return to it
- Lead on benefit of hormone therapy and contrast with uncertainty of chemotherapy benefit for all patients
- 3. Give the rationale for OPTIMA -
- 4. Set out what happens when a patient joins the study many find the diagram in the PIS a helpful tool
- 5. Be clear about what is being randomised i.e. to have chemotherapy as SoC or test directed (the patient is not being randomised to chemotherapy v no chemotherapy)
- 6. Say and show that you are happy for the patient to join the study and have their treatment determined by it.

"I'm very happy for you to enter the study and to follow the treatment that you would get given, whatever that may be."



## 7. Engage with Patient Preferences



 What sounds like a preference, can be based on misconceptions, not having full info...



Everyone I know that's survived (breast cancer) has had chemotherapy. To me, my brain's telling me that's obviously a good thing.

Everybody has to have chemotherapy anyway, don't they?

- Recruiter's role is to:
  - Elicit concerns and preferences
  - Address misconceptions
  - Provide information to 'complete the picture'
  - Explore reasons for preference

Strengthening informed consent whatever the decision



#### OPTIMA recruiter tips: Engaging with patient preferences

Patient preferences are often cited as an obstacle to recruitment. Drawing on audio-recordings and interviews as part of the OPTIMA Qualitative Recruitment Study (QRS), this tips document takes a look at how patients come to have a preference and offers strategies for exploring and responding to these.

#### How do patients develop preferences?



#### What can you do about this?

Starting with your colleagues, please ensure your surgeon, breast nurse specialist and radiography colleagues are familiar with OPTIMA. When talking with patients about treatment following surgery, ask them to:

Websites, social media, friends and family, and your fellow colleagues all have the potential to shape what a patient thinks about adjuvant treatment and OPTIMA.

- · Encourage patients to keep an open mind about follow-on treatment
- · introduce uncertainty of chemotherapy benefit for all
- · prepare patients for a discussion about OPTIMA with their oncologist

To help, we've produced an OPTIMA guide for surgeons and one for breast nurse specialists and a 2-sided patient information flyer for your colleagues to hand to patients at the post-surgery appointment. All are available from the OPTIMA team at Warwick (optima@warwick.e.uk).

Moving on to your response — OPTIMA is a treatment de-escalation study with very different treatment arms. It is not surprising that some patients may have a strong initial reaction when the trial is presented to them. Try to engage with this initial response by inviting the patient to share with you what's behind their reaction.

We appreciate that engaging with preferences may be a little different to what you would normally do but in the context of recruiting to a study, it leads to better informed consent whatever the final decision. To help with this conversation, we share some strategies that have worked well for many recruiters.

#### Strategies for engaging with preferences

Acknowledge the preference and open up the discussion

- "OK. I'd like to go through all your options, to make sure you have all the relevant information...." (if at the beginning of the conversation)
- "Keep an open mind as I recap all your options ...."

Explore patient's rationale

- "What is it that worries you about X?"
- "Are you concerned about X? Perhaps I can relieve some of those concerns?"

Balance patient's views, tailored to their specific concern

- Offer reassurance
- Fill information gaps
- · Address misconceptions

OPTIMA Recruitment and Informed Consent Guidance – Patient Preferences Version 1.0, June 2019

Page 1 of 2

# Engaging WARWICK CLINICAL TRIALS UNIT WITH Patient

# Preferences



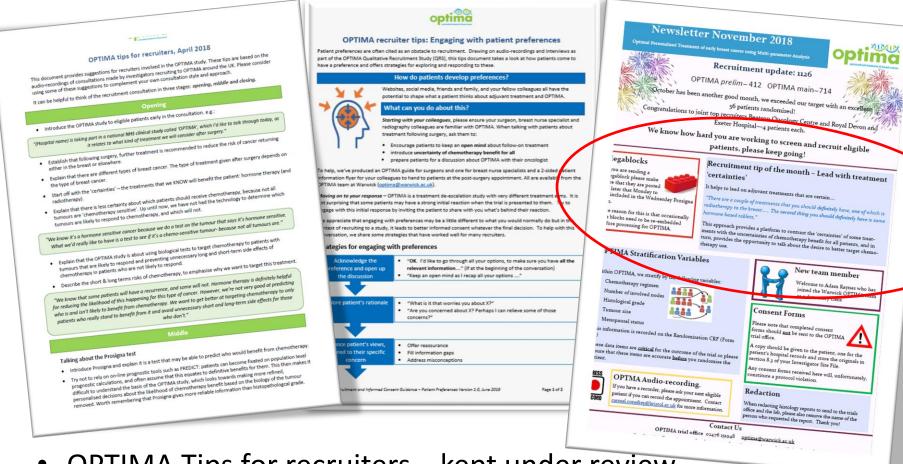
Recruiter training and support (optimabreaststudy.com)



# **Support for Recruiters**



CLINICAL TRIALS UNIT



- OPTIMA Tips for recruiters kept under review
- Monthly recruitment tip in OPTIMA Newsletter

# **Screening log**



- Include all patients identified as potentially eligible (ER+ve, HER2 –ve, suitable for adjuvant chemotherapy)
- > Do not include those offered multi-parameter testing as standard of care
- Provides valuable insight into recruitment process and can highlight potential obstacles
- Requirement of reporting randomised controlled trials and part of GCP
- Requested monthly

OPTIMA Patient Screening Log									op	optima prindial better of breat tare		
te:							Pi	Principal Investigator:			Page: 1	
fered	adjuvan	Date screening initiated	erapy,	except fo	r those v	vho are o		ly eligible as thought to have ER ameter testing (e.g. Oncotype DX) alk).  Is the eligible patient approached? (please circle)	[1] [1] [1] [1] [1] [1] [1] [1] [1] [1]	Did patient consent to Qualitative Recruitment Study?	Trial No.  OR  QRS	
×		(d/m/yr)								(please circle)	Registration No.	
OM1							Yes	Yes	Yes	Audio-recording		
							No, why not?1	No, why not?	No, why not? <sup>2</sup>	Yes / No Interview Yes / No		
OM2							Yes	Yes	Yes	Audio-recording		
							No, why not?1	No, why not?	No, why not?2	Yes / No Interview Yes / No		

## **Data collection**



#### **CRF** completion

- ALL questions should be completed unless the question directs you not to.
- If data is missing please explain by means of a statement such as "not done", "not applicable" or "unknown" so we do not query it as missing data.
- > Please send original forms to be sent to the trial office and retain a copy for the site file.
- ➤ If you are not sure how to fill in any element of the form, we are very happy to help call us anytime and we will be able to point you in the right direction.

#### Schedule of CRF return

- We ask for most of the CRFs to be sent to us within 4 weeks of completion.
- E.g. Baseline Forms to be sent within 4 weeks of randomisation.

#### **Surgery CRF**

Asks you to attach the histology reports from surgery. Please obscure any identifiers and add participant's trial ID.

# **Data querying**



All queries will be sent to nominated person(s) by email.

The TMG have split out the data items into Critical and Non-Critical Data Items.

#### **Critical Data Items**

- Data items which are considered to be critical for patient safety and trial integrity
- > Any of these data items which contain queries will be sent to Sites on a 2-weekly basis

#### Non-critical data items

- Any other data queries will be sent to Sites on a semi-regular basis.
- You should check these and return the corrected data to us at your earliest convenience.

# **Data querying**



#### **Self Evident Corrections (SEC)**

- We operate a system of self-evident corrections on CRFs to limit the number of queries.
- Individual self-evident corrections will be approved by the Trial Coordinator.
- ➤ PI's and sites will be supplied with a list of pre-approved SECs no SECs will be made unless they are on the pre-approved list.

Example: Question asks if the patient has any previous or current diseases other than breast cancer and you have not ticked 'Yes' but there are diseases listed – we will tick 'Yes' with our initial and date.

# **Monitoring**



#### Trials are monitored to ensure:

- Rights and well-being of patients are protected
- Trial data are accurate, complete and verifiable
- Trial conduct is in compliance with the protocol, GCP and applicable regulatory requirements



#### **Central Monitoring**

- •At WCTU
- •In-built trial management activities
- No/limited input from sites



#### **On-site Monitoring**

- At participating site
- •Input and availability from sites



#### **Remote Monitoring**

- •At CTU or sponsor office
- •Input from sites
- Recreate elements of an on-site visit

# **Types of Monitoring**



#### **Central Monitoring**



#### Examples (not exhaustive!):

- Validation within the trial database
- Review of Delegation logs, consent form data, eligibility data, safety data

#### On-site/Remote Monitoring





#### Format:

- Discuss trial procedures with local team
- Review will depend upon the scope of the visit: review of ISF, consent procedure, eligibility, outcome data, safety reporting, Pharmacy file, IMP review
- If an on-site visit is needed, sites will be guided through the process, requirements and timelines
- For remote visits, IT requirements will be discussed prior to the visit

# **Monitoring in OPTIMA**



- Risk-based proportionate monitoring approach for OPTIMA
- Monitoring activity will be predominantly central and remote
- On-site visits arranged to support sites if necessary or if triggered by a specific issue
- Relevant Trial Unit staff will conduct any on-site visits, supported by the trial team
- Ensure trial activities are clearly and consistently recorded in source documents –
   source documents may be reviewed against submitted data

#### Source data

Information in original records/certified copies of clinical findings, observations and/or activities necessary for the reconstruction and evaluation of the trial. This may be electronic and/or paper and will vary across sites. The Case Report Form is not considered to be source data for OPTIMA

## When can we activate your site?



#### **Essential documents required before patients can be recruited:**



- ✓ Trust R&D approval/ confirmation of capacity and capability
- ✓ Signed Site Agreement (CTA)
- ✓ Completed Site Signature & Delegation Log
- ✓ Principal Investigator's CV & evidence of GCP training
- ✓ Site initiation attendance log
- ✓ Signature to confirm local lab adheres to NEQAS standards
- ✓ Written confirmation of site activation/opening from the Trial Coordinator

#### **OPTIMA** team contacts

Please do not hesitate to contact us with any queries:

optima@warwick.ac.uk



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