

ROTACIÓN EN LINCOLN COUNTY HOSPITAL INGLATERRA



José Javier Martínez Simón

FEA Farmacia Hospitalaria

27 ENERO 2020

Curso Bienvenida Residentes de

Primer Año

SEFH



CONVOCATORIA DE BECAS DE COMPLEMENTO PARA AMPLIACIÓN DE ESTUDIOS 2019

La Fundación Española de Farmacia Hospitalaria convoca Becas de Complemento para Ampliación de Estudios para realizar en España o en el Extranjero, durante el curso académico 2019-2020.

Objetivos

Contribuir a la formación y perfeccionamiento de los especialistas en Farmacia Hospitalaria.

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Scale. International Centres of Excellence in Hospital Pharmacy 2018

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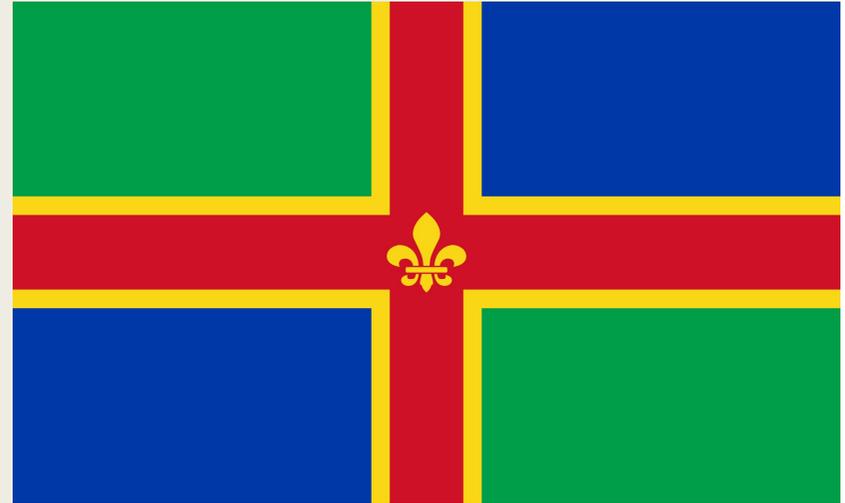
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First and last name:

CURRICULUM VITAE (MAXIMUM 28 POINTS)		To be completed by the applicant
<p>1. Complementary academic training (maximum 10 points) Complete Master or Expert Course of 60 credits or more: 1 point Doctoral Thesis: 5 points</p>	1.	__1__
<p>2. Scientific articles (maximum 10 points) EXCLUDING THOSE PUBLISHED IN FARMACIA HOSPITALARIA - For every article published in a: Journal indexed in SCI: 1 point Journal indexed in Medline: 0.5 points - For every case report or letter included in Medline: 0.3 points - For every book chapter with ISBN: 0.15 points</p>	2.	__0__
<p>3. Abstracts to workshops or congresses (maximum 5 points)</p>	3.	__3.3__

LOCALIZACIÓN





United Lincolnshire Hospitals NHS Trust

Excellence in rural healthcare



DISPENSARY



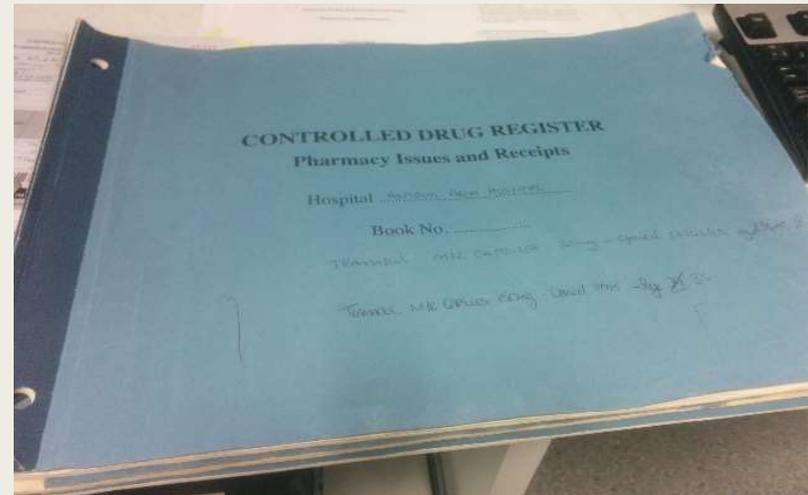
Dispensary

- 1) Reception of prescriptions
- 2) Clinical check (if non eMM*)
- 3) Dispensing
- 4) Labelling and Assembly
- 5) Accuracy checking



ORAL ANTIMICROBIAL PRESCRIPTIONS		SAFE PRESCRIPTIONS (Under Medicines Management Policy)		PATIENT NAME	
CHECK ALLERGY STATUS	1. All relevant prescription sheets must be completed. 2. All prescriptions must be fully signed and dated. 3. Each prescriber must produce a deep purple mark. 4. Prescriptions must be written clearly and legibly using indelible black ink. 5. Handwriting must be PRINTED using capital letters. 6. Legible prescriptions must be re-written before the drug can be administered. 7. Changes to the prescription must be made by re-writing the appropriate item. 8. Abbreviations must not be used.		NHS number		
	START SMART! - THEN FOCUS. Review ALL antibiotics at 48 hours - Stop! De-escalate / Continue and review again at 72 hours.				
Subsequent Approval date:		Date of review:		REVIEW (Please complete)	
Date	Time	Specialist	Specialist	Time	Stop
Oral		Marked	Non signed	TS	Corrective (Re-prescribe) Course duration Stop date
Prescribe & Sign		Stop	Prescribe	TS	
		Follow-up information			

DISPENSARY



eDischarge Summary

Other participant(s) in this document

Participant

Participant Name **Dr A BROWN**

Participant Organization **The Surgery**

Address

The High Street

The Town

The City

AA1 1BB

Referred By

Referrer Name **Dr A BROWN - General Medical Practitioner**

Referring Organization **The Surgery**

Work Address Phone **028787897990**

Urgent Notification

Notified To **Mrs Julia SMITH - Spouse**



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PHARMACIST WARD VISIT

Pharmacist ward visit



MEDICINE

- MEAU (PIN urgencias médicas)
- Burton (Renal)
- Carlton Coleby (Respiratorio)
- Dixon (Digestivo)
- Frailty Unit
- CCU (Unidad Cuidado Coronario → UCI Cardio)
- Lancaster (Rehabilitación/geriátría)
- Navenby (Endocrino/neurología)
- Scampton ("Medicina interna")
- Stroke (Ictus)

SURGERY

- SEAU (PIN urgencias quirúrgicas)
- Clayton (Urología/otorrino)
- Greetwell (Cirugía general)
- Neustadt Welton (Traumatología)

- ICU (UCI)
- Waddington (Onco-hematología)

Priorización de conciliación de la medicación a pacientes nuevos y altas



The collage includes several medical forms:

- A calendar for October 2019 with a date circled.
- A medication chart with columns for Date, Time, Dose, Route, and Status.
- An "ORAL ANTIMICROBIAL PRESCRIPTIONS" form with a "CHECK ALLERGY STATUS" section. It includes fields for Patient Name, NHS number, and a list of instructions for prescribing antibiotics.
- An "Insulin Prescription Chart" with fields for Patient Name, Date, and various insulin-related data.

PHARMACIST WARD VISIT

Pharmacist ward visit: ICU

- ❖ Pase de planta con médicos-enfermeros (el farmacéutico siempre está en UCI).
 - Prescripciones "predefinidas"
- ❖ Prescripción/consejo farmacéutico. Conciliación de la medicación. Analíticas.
- ❖ Nutriciones parenterales → Nutrition team (*nutritionist-pharmacist*).



Nutriciones parenterales tricamerales



PHARMACIST WARD VISIT

Period Of Increased Incidence (PII)
Antimicrobial Stewardship Report

Hospital:

Ward surveyed:

(Information gathered from drug charts, medical records and healthcare staff).

Purpose:

- A point prevalence survey to review all patients medication charts present on the ward and report on the antimicrobial prescribing.
- To establish if there is judicious prescribing of antimicrobials in accordance with ULHT guidelines.
- To identify any areas where prescribing falls outside of the guidelines and offer suggestions to promote compliance.

Antimicrobial Stewardship Audit of Prescribing Practices for Period of Increased Incidence (PII) Wards

Site: _____ Ward: _____ Date: _____ Completed by (pharmacist): _____

No. of beds on ward	
No. beds occupied (patients on ward)	
No. of prescription charts seen	
No of patients on antimicrobials	

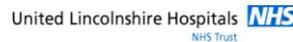
Patient NHS number and Surname	Antimicrobial agent(s) prescribed (Include peri-operative prophylactic antibiotics for that day)	Route	Specific Indication(s)	Indication on chart for ALL antibiotics?	Antimicrobials appropriate? a) Consistent with guidelines? b) Consultant microbiologist advice? c) C&S results?	Stop / review date on prescription chart? (in addition to pre-printed prompt) If prophylaxis, select N/A	Day of Tx to date If long term prophylaxis write 'L/T' If stat dose or peri-op prophylaxis write 'stat'	Antimicrobial review clearly documented in the notes in the last 24 hrs Select N/A if long term prophylaxis or per-op prophylaxis.	Day 3 Prescribing Decision clearly documented? Select N/A if ≤ 3 days antimicrobial treatment.	Comments (e.g. PPI Rxd, NBM, CURB65 score, neutropenia, allergy status, unclear indication, previous Tx, microbiology input, C&S results, renal impairment).	Consultant
		IV PO		Yes / No	a - Yes / No b - Yes / No c - Yes / No	Yes / No / NA		Yes / No / NA	Yes / No / NA		
		IV PO		Yes / No	a - Yes / No b - Yes / No c - Yes / No	Yes / No / NA		Yes / No / NA	Yes / No / NA		
		IV PO		Yes / No	a - Yes / No b - Yes / No c - Yes / No	Yes / No / NA		Yes / No / NA	Yes / No / NA		



ANTIBIOTIC FORMULARY AND PRESCRIBING ADVICE FOR ADULT PATIENTS

VERSION 7.2
EFFECTIVE 28 NOVEMBER 2017

THIS DOCUMENT SUPERSEDES ALL ANTIBIOTIC GUIDANCE FROM ANY SOURCE REGARDING ADULT PATIENTS DATED PRIOR TO THE ABOVE DATE



4.1.2 Uncomplicated Urinary Tract Infections (Simple cystitis)

Note:

1. In long-term catheterised patients only those with relevant clinical signs of infection need treatment.
2. Microscopic examination of urine alone is of limited value in unequivocally diagnosing infection; therefore any such emergency request is not normally entertained.
3. In recurrent prostatitis discuss treatment with Consultant Microbiologist.

First Line: Nitrofurantoin 100mg po every 6 hours
Duration: Females (non-catheterised) 3 days, Males 7 days

NOTE: Nitrofurantoin is both ineffective and toxic in renal failure and is contraindicated in patients with an eGFR <45ml/min. It is also ineffective in complicated UTIs and should only be used in simple cystitis

Second Line: Trimethoprim 200mg po every 12 hours
Duration: Females (non-catheterised) 3 days, Males 7 days

Third Line: Co-amoxiclav 625mg po every 8 hours
Duration: Females (non-catheterised) 3 days, Males 7 days.

In pregnancy, trimethoprim is contra-indicated in first and second trimester– amoxicillin (only to be used if organism known to be sensitive) or co-amoxiclav should be first choice.

Second line in pregnancy:

First trimester: Trimethoprim is absolutely contra-indicated. Drugs of choice are nitrofurantoin or co-amoxiclav or cefalexin.

Second trimester: Trimethoprim is relatively contra-indicated. Drugs of choice are nitrofurantoin or co-amoxiclav or cefalexin.

ANTIBIOTIC DRUG	ADULT DOSE IN NORMAL RENAL FUNCTION	eGFR 20 to 50ml/min	eGFR 10 to 20ml/min	eGFR <10ml/min	REFERENCE SOURCE
Ertapenem IV	1g 24-hourly	eGFR 30 to 50ml/min 1g 24-hourly	eGFR 10 to 30ml/min 500mg to 1g 24-hourly	eGFR <10ml/min 500mg 24-hourly	1,2
Erythromycin Oral	250mg to 500mg 6-hourly or 500mg to 1g 12-hourly	No change	No change	Max 1.5g daily	1,2
Erythromycin IV	25-50mg/kg daily in 4 divided doses Max 4g daily	No change	No change	Max 1.5g daily	1,2
Flucloxacillin Oral	250mg to 1g 6-hourly	No change	No change	No change, max 4g daily	1,2,3
Flucloxacillin IV	250mg to 2g 6-hourly	No change	No change	No change, max 4g daily	1,2,3
Fluconazole Oral/IV	50 to 400mg daily	50 to 100% normal dose	50 to 100% normal dose	50% of normal dose	1,2,3
Patients on haemodialysis should receive 100% of normal dose after each dialysis					
Sodium fusidate oral tablet	500mg to 1g 8-hourly	No change	No change	No change	1
Fusidic acid oral liquid	750mg 8-hourly	No change	No change	No change	2
Fosfomycin oral	3g as a single dose	No change	No change	Avoid	1
Fosfomycin IV	500mg to 1g 6 to 8-hourly up to 24g daily 8g max single dose	eGFR 31 to 40ml/min Normal loading dose, then 70% of dose, in 2 to 3 divided doses	eGFR 21 to 30 ml/min Normal loading dose, then 60% of dose, in 2 to 3 divided doses	eGFR 11 to 20 ml/min Normal loading dose, then 40% of dose, in 2 to 3 divided doses	1,2
eGFR <10ml/min - Normal loading dose, then 20% of dose, in 1 to 2 divided doses					
Gentamicin Multiple doses/day	80mg 8-hourly	CrCl: 30 to 60ml/min 80mg 12-hourly, monitor levels (60mg if <60kg)	CrCl: 10 to 30ml/min 80mg 24-hourly, monitor levels (60mg if <60kg)	CrCl: <10ml/min 80mg 48-hourly or post-dialysis (60mg if <60kg). Monitor levels	1,3,4
Gentamicin once daily		See Local Guidance			4
Imipenem/cilastatin IV	500mg to 1g every 6 to 8 hours Max 4g 24-hourly	eGFR 41 to 70ml/min 500mg 6 to 8-hourly or 750mg 8-hourly	eGFR 21 to 40ml/min 250mg 6-hourly or 500mg 6 to 8-hourly	eGFR 6 to 20ml/min 250mg to 500mg (or 3.5mg/kg, whichever is lower) 12-hourly Avoid if eGFR <6ml/min	1,3
Levofloxacin oral/ IV	250mg 24-hourly to 500mg 12-hourly	Initially 250 to 500mg then 125mg 24-hourly to 250mg 12-hourly	Initially 250 to 500mg then 125mg 12 to 48-hourly	Initially 250 to 500mg then 125mg 24 to 48-hourly	1,2
Linezolid Oral/IV	600mg 12-hourly	No change	No change	No change, but monitor closely (metabolites may accumulate) Consider 600mg 24-hourly if platelets drop whilst on 12-hourly dosing	1,2,3

Drugs of choice are trimethoprim or co-

CHECK FOR ALLERGIES, DRUG INTERACTIONS

MEDICINES INFORMATION

- Base de datos 16 años.
- Más de 12.000 consultas.
- Búsqueda por palabra clave.
- Recogida bibliografía.
- Plan para ampliar a otros Trust.



- Existencia de un FORMULARIO, similar a nuestra guía farmacoterapéutica.
- Evaluación de medicamentos a incluir, conjuntamente con atención primaria.

NICE

National Institute for
Health and Care Excellence

NICE guidance

Evidence-based recommendations developed by independent committees, including professionals and lay members, and consulted on by stakeholders.

[View all guidance](#)

Atezolizumab with carboplatin and nab-paclitaxel for untreated advanced non-squamous non-small-cell lung cancer (terminated appraisal)	TA618	January 2020	January 2020
Palbociclib with fulvestrant for treating hormone receptor-positive, HER2-negative, advanced breast cancer	TA619	January 2020	January 2020
Olaparib for maintenance treatment of relapsed platinum-sensitive ovarian, fallopian tube or peritoneal cancer	TA620	January 2020	January 2020
Osimertinib for untreated EGFR mutation-positive non-small-cell lung cancer	TA621	January 2020	January 2020

ACCIDENT AND EMERGENCY SERVICES

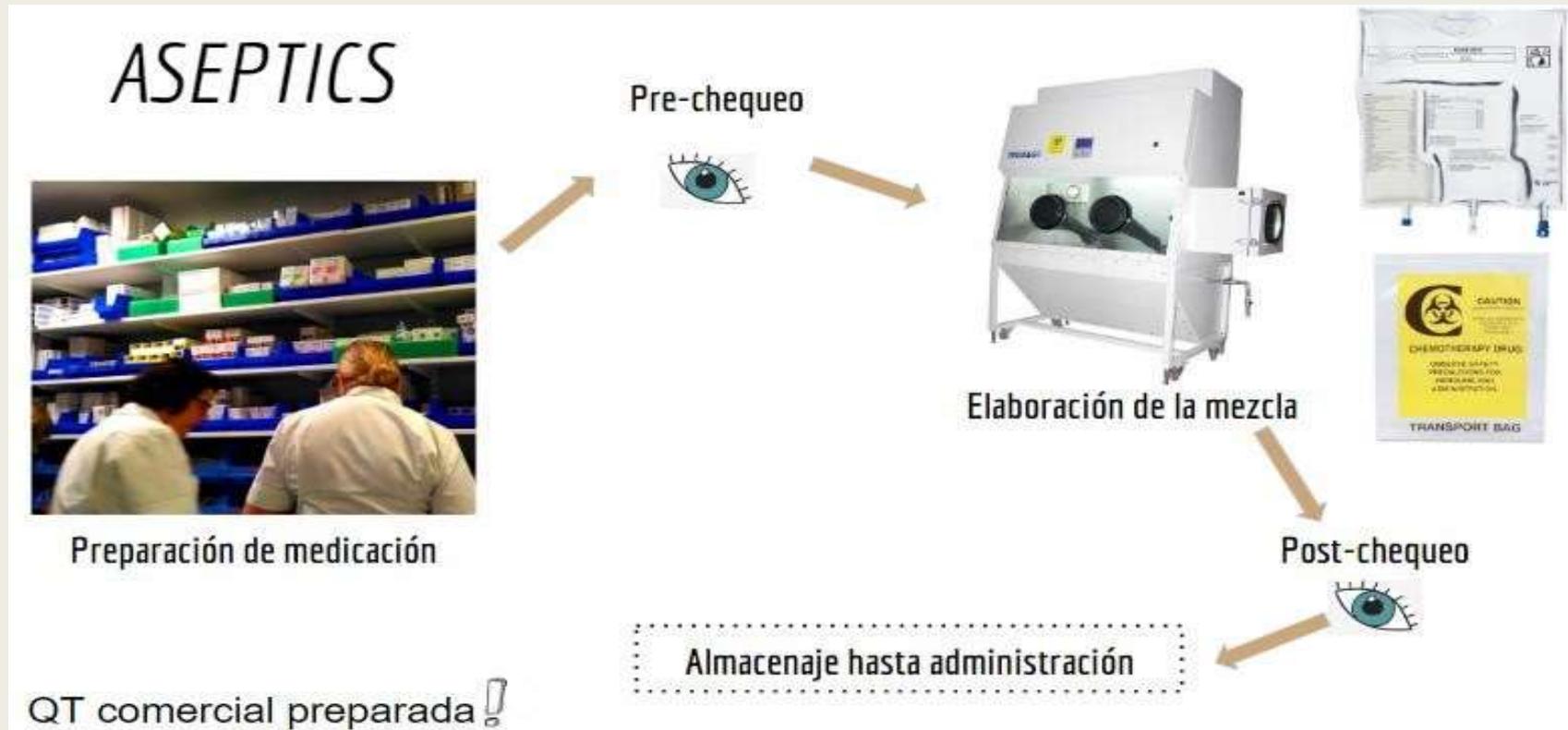


Por cada paciente:

- Revisa tratamiento.
- Entrevistas con el paciente.
- Conciliación de la medicación.
- Prescripción de tratamiento habitual.
- Revisión de analítica.
- Consulta dudas del tratamiento con el médico.
- Prescribe medicación nueva en función del estado del paciente.



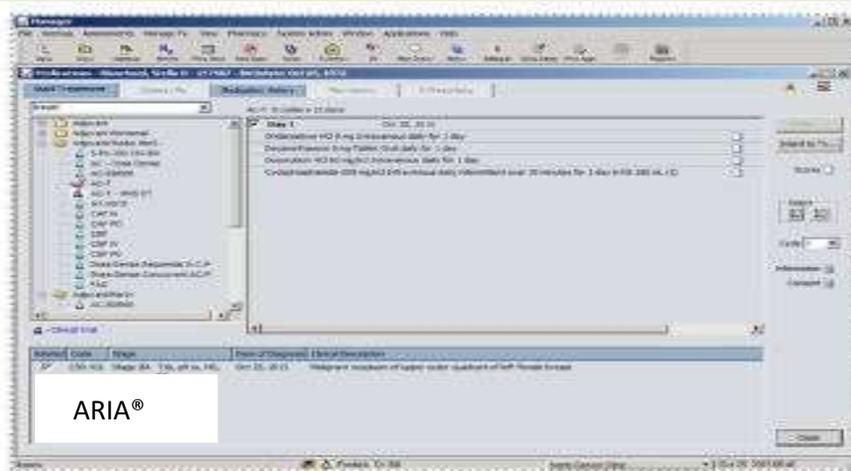
ASEPTICS



Nutrición

- Todas comerciales tricamerales (también para neonatos) : añaden sobre ella electrolitos y vitaminas
- Se encarga también endocrino.
- Doble chequeo del etiquetado.

ONCOLOGY AND HAEMATOLOGY



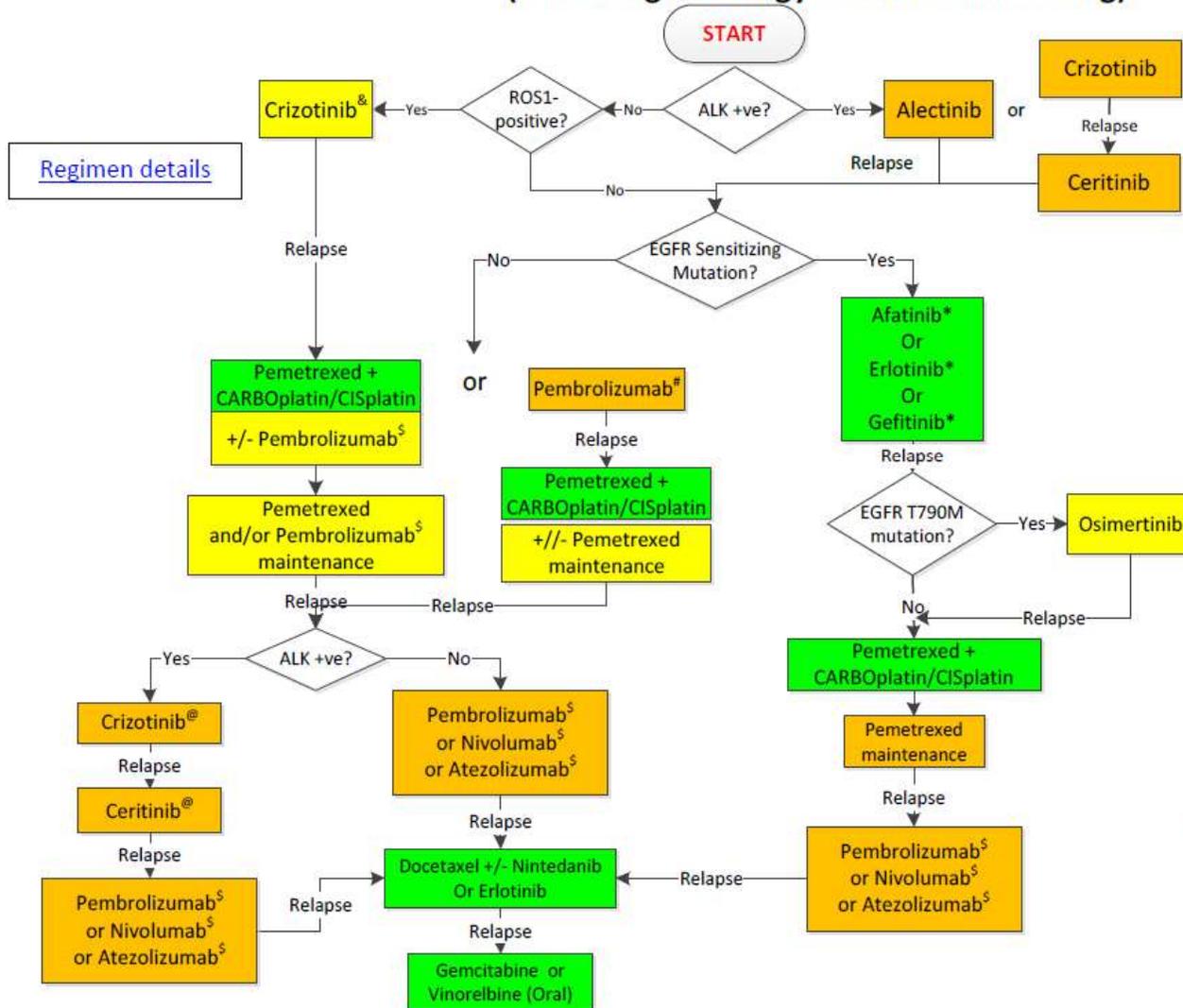
- ✓ Validación clínica de la prescripción.
- ✓ Revisión analíticas antes de validar cada tratamiento → (en cada protocolo se encuentran anotados los parámetros a revisar antes de autorizar la quimioterapia).
- ✓ Es tarea del farmacéutico revisarlas, médico normalmente no las ve.



- ✓ Prescripción por protocolos.
- ✓ La quimioterapia oral, terapia de soporte, antiemesis... Se dispensa en una farmacia comunitaria que se encuentra dentro del propio hospital.
- ✓ Farmacéutico en planta de onco-hematología.

Palliative Intent Chemotherapy Algorithm for Stage 3b/4 Non Small Cell Lung Cancer (NSCLC)

Advanced Non-Squamous Cell NSCLC – Potentially Fit for Chemotherapy (Following Histology & Molecular Testing)



[Regimen details](#)

*In exceptional cases this may be used in patients who have received non-targeted chemotherapy because of delayed confirmation that their tumour is EGFR-TK mutation-positive. No sequential use of TKIs is approved

@ Crizotinib/ Ceritinib may not be used as a rechallenge if either, or alectinib given earlier in the pathway.

& Crizotinib ROS1 +ve can be any line of therapy.

Pembrolizumab if PD-L1 ≥50%. This may only be used once, re-challenge is not commissioned.

§ Immunotherapy may only be used once, re-challenge is not commissioned. See [CDF list criteria](#) w.r.t. PDL-1 status.

Pemetrexed maintenance (TA190) is also available if

- Locally advanced or metastatic non-small-cell lung cancer
- Squamous cell carcinoma is NOT the main type of cancer
- No previous pemetrexed and cisplatin as a first treatment-e.g. diagnosis subsequently shown to be suitable for maintenance.
- PS did not worsen immediately after platinum-based chemotherapy together with gemcitabine, paclitaxel or docetaxel.

KEY

- Funded via NHS England
- Funded with prior funding approval (BluTeq) required
- May be applied for via Cancer Drugs Fund

DOSE BANDING

1 How to Use NHS England Dose Banding Tables

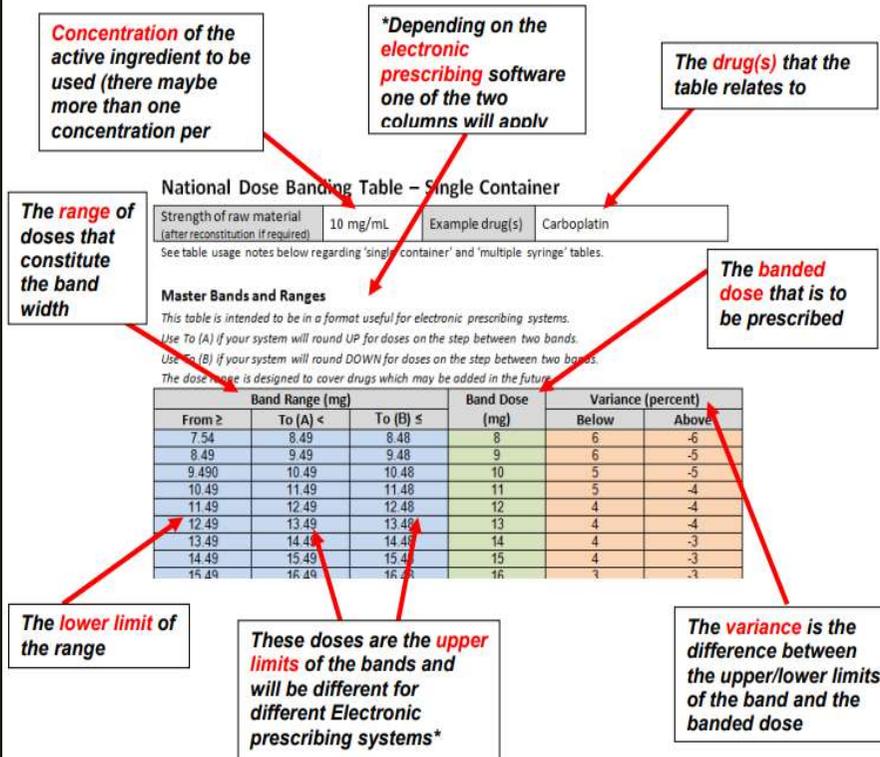
Dose banding is a system whereby drug doses which are calculated are grouped and rounded to set of pre-defined doses. Each series of consecutive dose(s) is called a 'band', with the dose to which they are rounded towards being the 'banded dose'.

These tables, used in conjunction with the CQUIN and the draft DTC submission paper, follow two main rules:

1. No target dose of 'traditional' SACT is greater than $\pm 6\%$ of the precise calculated dose without specific prior agreement
2. No target dose of MAB's used as a SACT is greater than $\pm 10\%$ of the precise calculated dose without specific prior agreement

Below outlines the different sections of the tables and also gives a couple of situational examples.

1.1 What the Table Labels Mean



National Dose Banding Table – Single Container

Strength of raw material (after reconstitution if required)	50 mg/mL	Example drug(s)	Fluorouracil (mg)*
---	----------	-----------------	--------------------

See table usage notes below regarding 'single container' and 'multiple syringe' tables.

*Note that these doses will work for both the 25mg/mL and 50mg/mL fluorouracil vials.

Master Bands and Ranges

This table is intended to be in a format useful for electronic prescribing systems.

Use To (A) if your system will round UP for doses on the step between two bands.

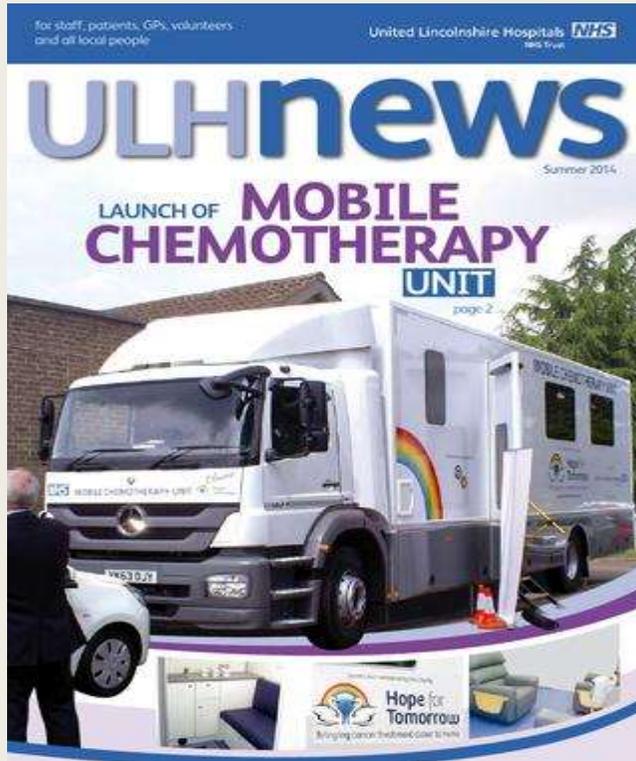
Use To (B) if your system will round DOWN for doses on the step between two bands.

The dose range is designed to cover drugs which may be added in the future.

Band Range (mg)			Band Dose (mg)	Variance (percent)	
From \geq	To (A) <	To (B) \leq		Below	Above
114.90	124.90	124.89	120	4	-4
124.90	134.90	134.89	130	4	-4
134.90	144.90	144.89	140	4	-3
144.90	154.90	154.89	150	4	-3
154.90	164.90	164.89	160	3	-3
164.90	174.95	174.94	170	3	-3
174.95	189.75	189.74	180	3	-5
189.75	209.75	209.74	200	5	-5
209.75	229.80	229.79	220	5	-4
229.80	254.55	254.54	240	4	-6
254.55	284.60	284.59	270	6	-5
284.60	314.65	314.64	300	5	-5
314.65	349.45	349.44	330	5	-6
349.45	389.50	389.49	370	6	-5
389.50	429.55	429.54	410	5	-5
429.55	474.35	474.34	450	5	-5
474.35	524.40	524.39	500	5	-5
524.40	574.45	574.44	550	5	-4
574.45	624.50	624.49	600	4	-4
624.50	674.55	674.54	650	4	-4
674.55	724.55	724.54	700	4	-3
724.55	774.60	774.59	750	4	-3
774.60	848.55	848.54	800	3	-6
848.55	948.70	948.69	900	6	-5
948.70	1048.80	1048.79	1000	5	-5
1048.80	1148.90	1148.89	1100	5	-4
1148.90	1272.80	1272.79	1200	4	-6
1272.80	1423.00	1422.99	1350	6	-5
1423.00	1573.20	1573.19	1500	5	-5
1573.20	1723.35	1723.34	1650	5	-4
1723.35	1897.35	1897.34	1800	4	-5
1897.35	2121.30	2121.29	2000	5	-6
2121.30	2371.70	2371.69	2250	6	-5



MOBILE CANCER CARE UNIT



- 5 lugares por semana
- 15-20 pacientes por día
- Destinos cambiantes



Datos
Septiembre
2018

MEDICAMENTOS ALTO IMPACTO



Blueteq established as the system for High Cost Drugs Management Process in NHS England

Solicitud de autorización de un determinado fármaco para una de las indicaciones disponibles en el desplegable

Cancer Drugs Fund

- Patient access, while uncertainty about a drug's effectiveness can be assessed through data collection.
- Greater flexibility from NHS England in the deals agreed with the pharmaceutical industry to encourage the responsible pricing of cancer drugs.

HOME CARE



- Empresa privada de reparto.
- Farmacéutico gestiona prescripciones nuevas y cambios.
- Enfermería revisa analíticas.
- Algunos fármacos administrados por enfermería en el domicilio.
- Máximo 12 semanas de tratamiento

