STRUCTURING THE MANAGEMENT OF HIGH-RISK SKIN INFECTIONS: A MODEL CARE PATHWAY

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Model Care Pathway

- Supported, organised and funded by A.Menarini Farmaceutica Internazionale S.r.l.
- Developed by an independent expert panel

Why do we need a patient pathway?

- Skin and soft tissue infections (SSTI) are common
- Spectrum of clinical presention:mild → complicated
- Primary Care → Secondary Care
- Complicated SSTI (cSSTI) may require:
  - Specialist review
  - Inpatient stay
  - Parenteral antibiotics

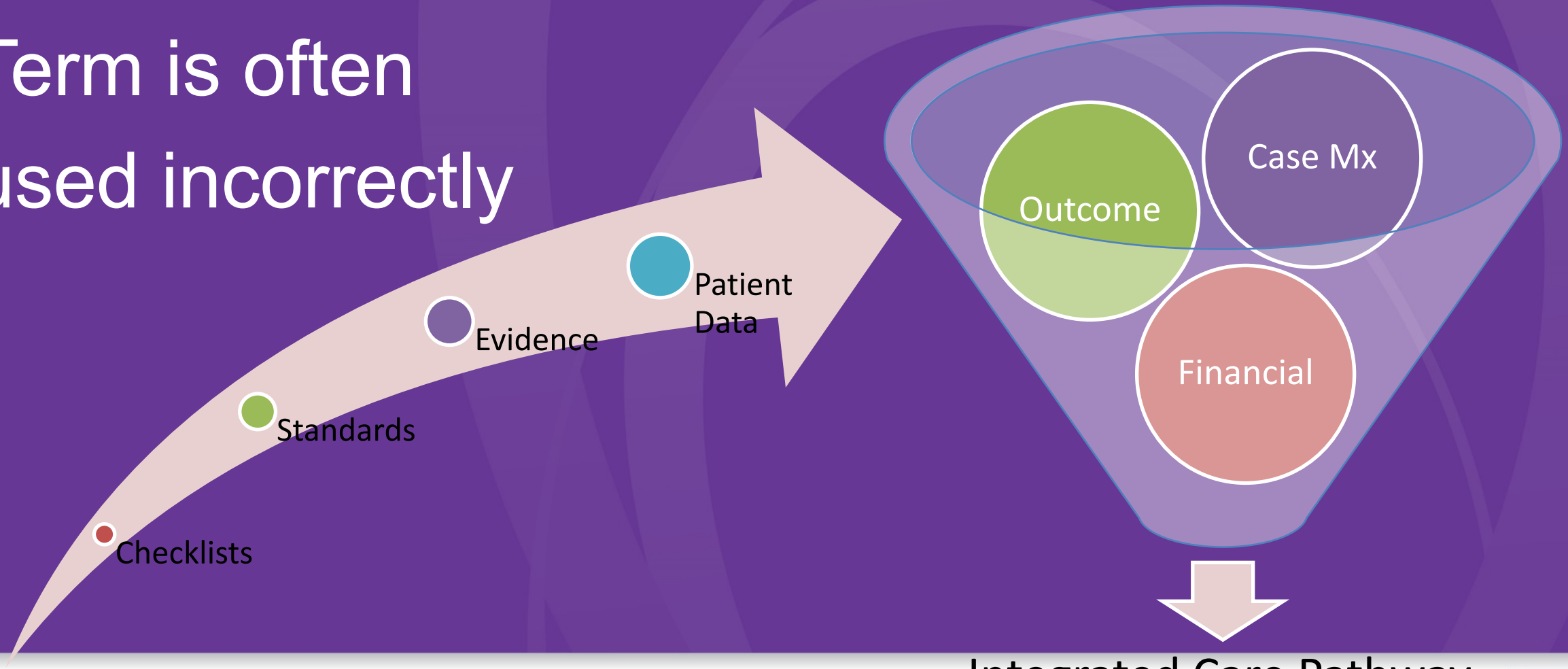
Measuring the activity

- 2017/18 data:

- 135 710 cases seen in secondary care
- 88 664 admitted:
  - Mean LOS = 5 days, median LOS = 2 days
  - Mean age = 64 years, 36.7% were >75 years
- Much higher proportion in primary care!
- If cost of medical bed = £400/day, then total cost = £271.4m/yr

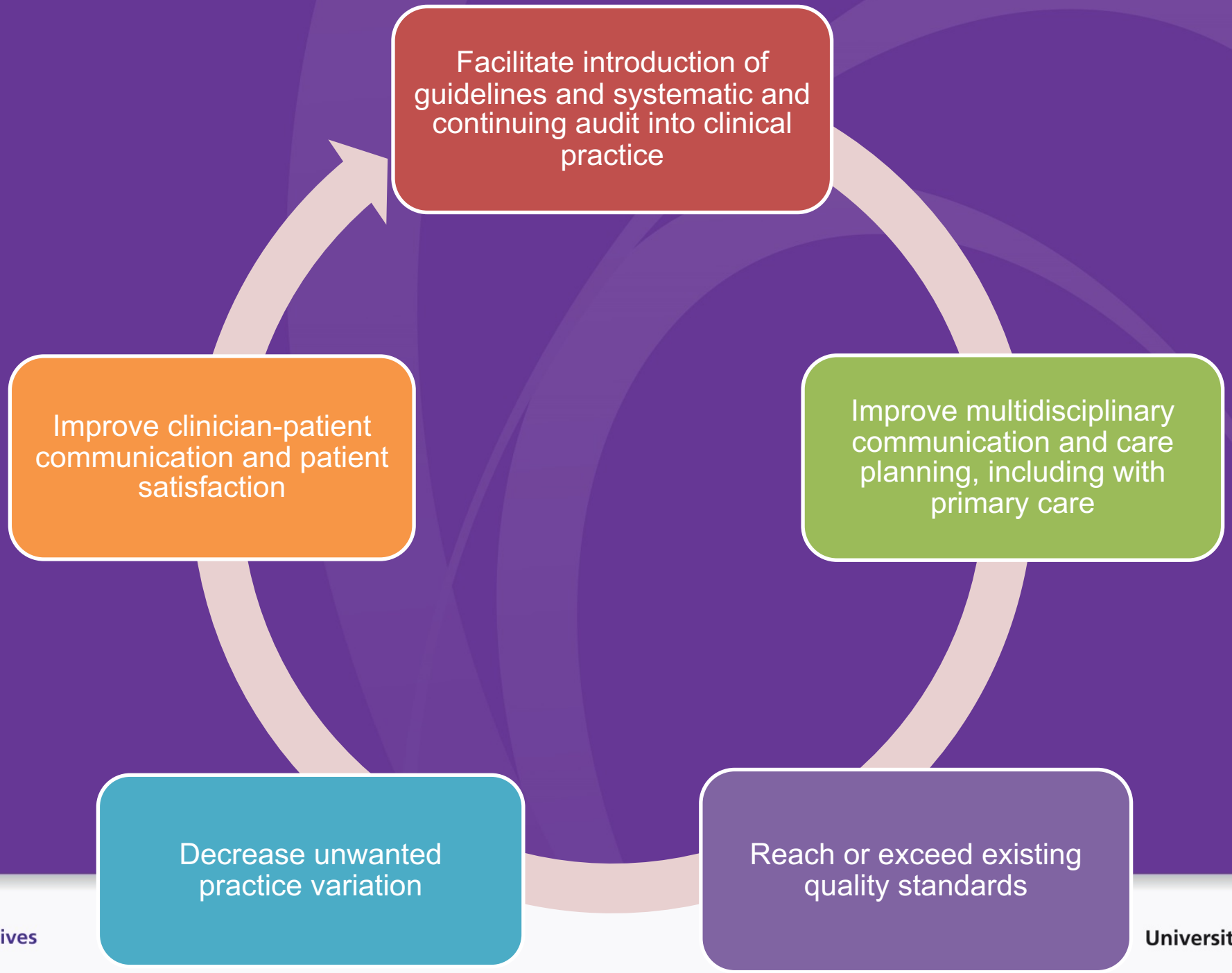
Integrated Care Pathway Framework

Term is often used incorrectly



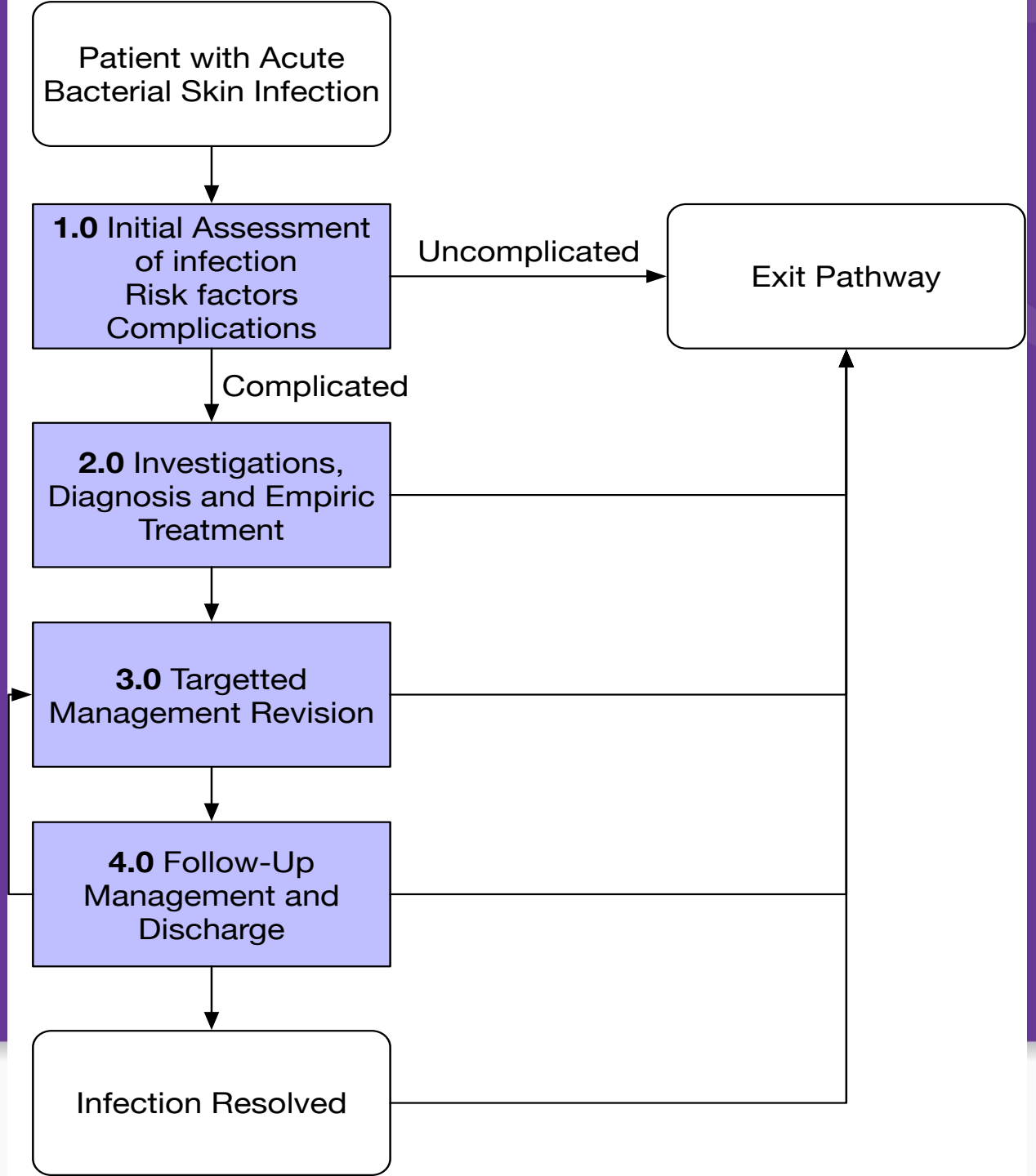
What should an ICP deliver?

- Supports multidisciplinary care
- Encourages simple record-keeping
- Allows locally determined standards to be set
- Facilitates clinical audit
- Enables variance from the normal pattern of care to be highlighted
- Enhances communication between clinical staff, and with patients
- Provides a structured plan for patient care
- Describes the expected progress for a “typical” patient
- Outlines the normal timescale of events
- Presents the procedures to be followed, in the right order
- Is backed up by evidence
- Incorporates guidelines based on best practice


Facilitate introduction of guidelines and systematic and continuing audit into clinical practice
Improve multidisciplinary communication and care planning, including with primary care
Reach or exceed existing quality standards
Decrease unwanted practice variation
Improve clinician-patient communication and patient satisfaction

Defining cSSTI

- SSTI: heat, redness, swelling, pain, discharge PLUS
- Fever or hypothermia
- Tachycardia (>100bpm)
- Hypotension (systolic blood pressure <90 mmHg or 20 mmHg below baseline).


Patient with Acute Bacterial Skin Infection
1.0 Initial Assessment of infection Risk factors Complications
Uncomplicated
Exit Pathway
Complicated
2.0 Investigations, Diagnosis and Empiric Treatment
3.0 Targetted Management Revision
4.0 Follow-Up Management and Discharge
Infection Resolved

How the ICP is delivered

- 5 page proforma

- Checklists on each page
- Free-text boxes
- Exit box at each stage

1.0 Initial Assessment of Infections

- Take a thorough history
- Assess risk factors
  - Skin breaks, ulceration, maceration, concomitant skin disorder
  - Chronic liver/renal disease, diabetes, immunocompromise
  - Risk factors for recurrence
- Examine the patient
- Skin breaks, signs of severity (e.g. systemically unwell)

1.0 Initial Assessment of Infections

- Categorise severity (Eron classification):
  - Class I — there are no signs of systemic toxicity and the person has no uncontrolled co-morbidities.
  - Class II — the person is either systemically unwell or systemically well but with a co-morbidity (for example peripheral arterial disease, chronic venous insufficiency, or morbid obesity) which may complicate or delay resolution of infection.
  - Class III — the person has significant systemic upset such as acute confusion, tachycardia, tachypnoea, hypotension, or unstable co-morbidities that may interfere with a response to treatment, or a limb-threatening infection due to vascular compromise.
  - Class IV — the person has sepsis syndrome or a severe life-threatening infection such as necrotizing fasciitis.
- >Class II: compatible with cSSTI

2.0 Investigations, Diagnosis & Empirical Treatment

- NEWS≥5: Sepsis Six®
- Appropriate sampling:
  - Blood tests
  - Radiology
  - Microbiological sampling (based on local laboratory protocols)
- Define clearly any antibiotic allergies
- Antibiotic choices and dosages based upon local prescribing formulary
- IV → PO, role of OPAT?

3.0 Targeted Management Revision

- Essential part of the process
- Clinical examination
- Review results as they become available: haematology, biochemistry, radiology and microbiology
- Specialist input to manage risk factors (e.g. glycaemic control)

4.0 Follow-up Management & Discharge

- Determine frequency of reviews and their location
- This may depend on clinical resolution (or lack thereof)
- Consider the need for extra investigations
- Lack of response: pathogen or patient?
- Review again of risk factors

5.0 Exit

- Patients may leave the pathway permanently or temporarily
- Reasons for exit
  - Admitted to hospital
  - Transferred care elsewhere
  - Death
  - Lost to follow-up

How can the ICP be deployed?

- As part of a data collection tool (e.g. SSI surveillance)
- Can be modified at local/regional level
- Can form the standard for audit
- Can be employed by healthcare professionals with appropriate training

- A potential tool to standardise practice

Expert independent panel

- Lilian Chiwera, Guy's and St Thomas' NHS Foundation Trust
- Andrew Dodgson, Central Manchester University Hosptals NHS Foundation Trust
- Simon Goldenberg, Guy's and St Thomas' NHS Foundation Trust
- Robin Howe, University Hospital of Wales
- Abid Hussain, University Hospitals Birmingham
- David Wareham, Barts Health NHS Trust
- Nitil Kedia, Herts Valleys Clinical Commissioning Group
- Inderjit Singh, University Hospitals Birmingham
- Girish Babu, Royal Berkshire NHS Foundation Trust
- Maharukh Daruwalla, Lister Hospital I East and North Herts NHS Trust