Centers for Disease Control and Prevention
Guideline for the Prevention of Surgical Site Infection,2017

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IMPORTANCE

- The human and financial costs of treating surgical site infections (SSIs) are increasing. The number of surgical procedures performed in the United States continues to rise, and surgical patients are initially seen with increasingly complex comorbidities. It is estimated that approximately half of SSIs are deemed preventable using evidence-based strategies.
- **OBJECTIVE :**
  - To provide new and updated evidence-based recommendations for the prevention of SSI.

EVIDENCE REVIEW

- A targeted systematic review of the literature was conducted in MEDLINE, EMBASE, CINAHL, and the Cochrane Library from 1998 through April 2014.
- A modified Grading of Recommendations, Assessment, Development, and Evaluation (GRADE) approach was used to assess the quality of evidence and the strength of the resulting recommendation and to provide explicit links between them.
- Of 5759 titles and abstracts screened, 896 underwent full-text review by 2 independent reviewers. After exclusions, 170 studies were extracted into evidence tables, appraised, and synthesized.

FINDINGS

- Before surgery, patients should shower or bathe (full body) with soap (antimicrobial or nonantimicrobial) or an antiseptic agent on at least the night before the operative day.
- Antimicrobial prophylaxis should be administered only when indicated based on published clinical practice guidelines and timed such that a bactericidal concentration of the agents is established in the serum and tissues when the incision is made. (30MIN~1HR)
- In cesarean section procedures, antimicrobial prophylaxis should be administered before skin incision.
- Skin preparation in the operating room should be performed using an alcohol-based agent unless contraindicated.

FINDINGS

- For clean and clean-contaminated procedures, additional prophylactic antimicrobial agent doses should not be administered after the surgical incision is closed in the operating room, even in the presence of a drain.
- Topical antimicrobial agents should not be applied to the surgical incision.
- During surgery, glycemic control should be implemented using blood glucose target levels less than 200 mg/dL, and normothermia should be maintained in all patients.(手術~壓力考慮)(加溫)

- Increased fraction of inspired oxygen (FIO2)should be administered during surgery and after extubation in the immediate postoperative period for patients with normal pulmonary function undergoing general anesthesia with endotracheal intubation.
- Transfusion of blood products should not be withheld from surgical patients as a means to prevent SSI.

Surgical site infections (SSIs)

- Surgical site infections (SSIs) are infections of the incision or organ or space that occur after surgery.
- Surgical patients initially seen with more complex comorbidities and the emergence of antimicrobial-resistant pathogens increase the cost and challenge of treating SSIs.
- The prevention of SSI is increasingly important as the number of surgical procedures performed in the United States continues to rise.
- Public reporting of process, outcome, and other quality improvement measures is now required .
- Reimbursements for treating SSIs are being reduced or denied. It has been estimated that approximately half of SSIs are preventable by application of evidence-based strategies.

Methods

- This guideline focuses on select areas for the prevention of SSI deemed important to undergo evidence assessment for the advancement of the field.
- These areas of focus were informed by feed- back received from clinical experts and input from the Healthcare Infection Control Practices Advisory Committee (HICPAC), a federal advisory committee to the Centers for Disease Control and Prevention (CDC).

Methods

- This guideline's recommendations were developed based on a targeted systematic review of the best available evidence on SSI prevention conducted in MEDLINE, EMBASE, CINAHL, and the Cochrane Library from 1998 through April 2014.
- A modified Grading of Recommendations, Assessment, Development, and Evaluation (GRADE) approach was used for evaluating the quality of evidence and determining the strength of recommendations.

Methods

- These recommendations are found in eAppendix 1 of the Supplement. A detailed description of the Guideline Questions, Scope and Purpose, and Methods, as well as the Evidence Summaries supporting the evidence-based recommendations, can also be found in eAppendix 1 of the Supplement.
- The detailed literature search strategies, GRADE Tables, and Evidence Tables supporting each section can be found in eAppendix 2 of the Supplement.
- Evidence-based recommendations in this guideline were cross-checked with those from other guidelines identified in a systematic search.

Recommendation

- **Category** IA: A strong recommendation supported by high to moderate quality evidence suggesting net clinical benefits or harms.
- **Category** IB: A strong recommendation supported by low-quality evidence suggesting net clinical benefits or harms or an accepted practice (eg, aseptic technique) supported by low to very low–quality evidence.
- **Category** IC: A strong recommendation required by state or federal regulation.
- **Category II:** A weak recommendation supported by any quality evidence suggesting a trade-off between clinical benefits and harms.
- **No recommendation/Unresolved issue:** An issue for which there is low to very low–quality evidence with uncertain trade-offs between the benefits and harms or no published evidence on outcomes deemed critical to weighing the risks and benefits of a given intervention

Recommendations : Core Section

SSIs complicate

- Between 2006 and 2009, SSIs complicated approximately 1.9% of surgical procedures in the United States.However, the number of SSIs is likely to be underestimated given that approximately 50%of SSIs become evident after discharge.

COST OF SSIs

- Estimated mean attributable costs of SSIs range from $10443 in2005 US dollars to $25546 in 2020 US dollars per infection.
- Costs can exceed $90 000 per infection when the SSI involves a prosthetic joint implant or an antimicrobial-resistant organism.

➢ The Core Section of this guideline (eAppendix 1 of the Supplement) includes recommendations for the prevention of SSI that are generalizable across surgical procedures, with some exceptions as mentioned below.

Parenteral Antimicrobial Prophylaxis

- 1A.Administer preoperative antimicrobial agents only when indicated based on published clinical practice guidelines and timed such that a bactericidal concentration of the agents is established in the serum and tissues when the incision is made.(建立殺菌濃度)
  (Category IB–strong recommendation; accepted practice.)
- 1B.No further refinement of timing can be made for preoperative antimicrobial agents based on clinical outcomes.
  (No recommendation/ unresolved issue.)

Parenteral Antimicrobial Prophylaxis

- 1B. Administer the appropriate parenteral prophylactic antimicrobial agents before skin incision in all cesarean section procedures. (Category IA–strong recommendation; high-quality evidence.)
- 1C1. The literature search did not identify randomized controlled trials that evaluated the benefits and harms of weight-adjusted parenteral antimicrobial prophylaxis dosing and its effect on the risk of SSI. Other organizations have made recommendations based on observational and pharmacokinetic data, and a summary of these recommendations can be found in the Other Guidelines section of the narrative summary for this question (eAppendix 1 of the Supplement).
  - 臨床會依據病人體重微調劑量
    (No recommendation/unresolved issue)

Parenteral Antimicrobial Prophylaxis

- 1D. The search did not identify sufficient randomized controlled trial evidence to evaluate the benefits and harms of intraoperative re-dosing of parenteral prophylactic antimicrobial agents for the prevention of SSI.
  - 臨床上手術時間比較長時，會給預防性抗生素。
  - 臨床病人老年、DM，預計術後有合併症。

  (No recommendation/unresolved issue.)
- 1E. In clean and clean-contaminated procedures, do not administer additional prophylactic antimicrobial agent doses after the surgical incision is closed in the operating room, even in the presence of a drain.
  (Category IA–strong recommendation; high-quality evidence.)

Non-parenteral Antimicrobial Prophylaxis

- 2A.1. Randomized controlled trial evidence suggested uncertain trade-offs between the benefits and harms regarding intraoperative antimicrobial irrigation (eg, intra-abdominal, deep, or subcutaneous tissues) for the prevention of SSI.
  - 手術中一般臨床會使用N/S沖洗傷口，但沒有使用antimicrobial agent irrigation 。
    (No recommendation/unresolved issue.)
- 2A.2. The search did not identify randomized controlled trials that evaluated soaking prosthetic devices in antimicrobial solutions before implantation for the prevention of SSI.
  (No recommendation/ unresolved issue.)

Non-parenteral Antimicrobial Prophylaxis

- 2B.1. Do not apply antimicrobial agents (ie, ointments, solutions, or powders) to the surgical incision for the prevention of SSI. (BI抑制) (Category IB–strong recommendation; low-quality evidence.)
- 2B.2. Application of autologous platelet-rich plasma is not necessary for the prevention of SSI.
  (Category II–weak recommendation; moderate quality evidence suggesting a trade-off between clinical benefits and harms.)

Non-parenteral Antimicrobial Prophylaxis

- 2C. Consider the use of triclosan-coated sutures for the prevention of SSI.
  - 抗黴菌~急診PPU術後使用?
    (Category II–weak recommendation; moderate-quality evidence suggesting a trade-off between clinical benefits and harms.)
- 2D. Randomized controlled trial evidence suggested uncertain trade-offs between the benefits and harms regarding antimicrobial dressings applied to surgical incisions after primary closure in the operating room for the prevention of SSI.
  (No recommendation/ unresolved issue.)

Glycemic Control(麻醉科)

- 3A.1. Implement perioperative glycemic control and use blood glucose target levels less than 200 mg/dL in patients with and without diabetes.
  - (麻醉科~手術中是否有監測病人血糖)

  (Category IA–strong recommendation; high to moderate quality evidence.)
- 3A.2. The search did not identify randomized controlled trials that evaluated lower (<200 mg/dL) or narrower blood glucose target levels than recommended in this guideline nor the optimal timing, duration, or delivery method of perioperative glycemic control for the prevention of SSI. (No recommendation/unresolved issue.)
- 3B. The search did not identify randomized controlled trials that evaluated the optimal hemoglobin A1C target levels for the prevention of SSI in patients with and without diabetes. (No recommendation/unresolved issue.)

Normothermia(麻醉科)

- Maintain perioperative normothermia.
  (Category IA–strong recommendation; high to moderate quality evidence.)
- The search did not identify randomized controlled trials that evaluated strategies to achieve and maintain normothermia, the lower limit of normothermia, or the optimal timing and duration of normothermia for the prevention of SSI.
  - 手術中~加熱SOLUTION?

  (No recommendation/ unresolved issue.)

Oxygenation

- 6A. Randomized controlled trial evidence suggested uncertain trade- offs between the benefits and harms regarding the administration of increased fraction of inspired oxygen (FIO2) via endotracheal intubation during only the intraoperative period in patients with normal pulmonary function undergoing general anesthesia for the prevention of SSI.
  (No recommendation/unresolved issue.)
- 6B. For patients with normal pulmonary function undergoing general anesthesia with endotracheal intubation, administer increased FIO2 during surgery and after extubation in the immediate postoperative period. To optimize tissue oxygen delivery, maintain perioperative normothermia and adequate volume replacement.
  - POR
    (Category IA–strong recommendation; moderate-quality evidence.)

Oxygenation

- 6C. Randomized controlled trial evidence suggested uncertain trade- offs between the benefits and harms regarding the administration of increased FIO2 via face mask during the perioperative period in patients with normal pulmonary function undergoing general anesthesia without endotracheal intubation or neuraxial anesthesia (ie, spinal, epidural, or local nerve blocks) for the prevention of SSI. (No recommendation/unresolved issue.)
  - 不插管GA
- 6D. Randomized controlled trial evidence suggested uncertain trade-offs between the benefits and harms regarding the administration of increased FIO2 via face mask or nasal cannula during only the postoperative period in patients with normal pulmonary function for the prevention of SSI. (No recommendation/ unresolved issue.)
- The search did not identify randomized controlled trials that evaluated the optimal target level, duration, and delivery method of FIO2 for the prevention of SSI. (No recommendation/unresolved issue.)

Antiseptic Prophylaxis

- 8A.1. Advise patients to shower or bathe (full body) with soap (antimicrobial or nonantimicrobial) or an antiseptic agent on at least the night before the operative day.
  (Category IB–strong recommendation; accepted practice.)
- 8A.2. Randomized controlled trial evidence suggested uncertain trade-offs between the benefits and harms regarding the optimal timing of the preoperative shower or bath, the total number of soap or antiseptic agent applications, or the use of chlorhexidine gluconate washcloths for the prevention of SSI.
  (No recommendation/ unresolved issue.)
- 8B. Perform intraoperative skin preparation with an alcohol-based antiseptic agent unless contraindicated.
  (Category IA–strong recommendation; high-quality evidence.)

Antiseptic Prophylaxis

- 8C. Application of a microbial sealant immediately after intraoperative skin preparation is not necessary for the prevention of SSI.
  - 急診microbial sealant含_antibiotic
    (Category II–weak recommendation; low-quality evidence suggesting a trade-off between clinical benefits and harms.)
    PS: Skin Sealant to Reduce the Risk of Incision Contamination in Surgery

- 8D. The use of plastic adhesive drapes with or without antimicrobial properties is not necessary for the prevention of SSI.
  (Category II–weak recommendation; high to moderate–quality evidence suggesting a trade-off between clinical benefits and harms.)
  - Steril strep含BI

Antiseptic Prophylaxis

- 9A. Consider intraoperative irrigation of deep or subcutaneous tissues with aqueous iodophor solution for the prevention of SSI. Intraperitoneal lavage with aqueous iodophor solution in contaminated or dirty abdominal procedures is not necessary.
  (Category II–weak recommendation; moderate-quality evidence suggesting a trade-off between clinical benefits and harms.)
- 9B. The search did not identify randomized controlled trials that evaluated soaking prosthetic devices in antiseptic solutions before implantation for the prevention of SSI. (No recommendation/ unresolved issue.)
- 10. Randomized controlled trial evidence was insufficient to evaluate the trade-offs between the benefits and harms of repeat application of antiseptic agents to the patient's skin immediately before closing the surgical incision for the prevention of SSI.
  (No recommendation/unresolved issue.)

Prosthetic Joint Arthroplasty Section

- Prevention efforts should target all surgical procedures but especially those in which the human and financial burden is greatest.
  - In 2011, 1.2 million(120萬) prosthetic joint arthroplasty procedures performed(Knee50%，hip ，ankle，shoulder，elbow)in the United States.
  - By 2030, prosthetic joint arthroplasties are projected to increase to3.8 million(380萬) procedures per year.
  - Infection is the most common indication for revision in total knee arthroplasty.
- By 2030, the infection risk for hip and knee arthroplasty is expected to increase from 2.18%to 6.5% and 6.8%, respectively. the total number of hip and knee prosthetic joint infections is projected to increase to 221500 cases per year by 2030, at a cost of more than $1.62 billion(16.2億美金)(480億台幣).

Prosthetic Joint Arthroplasty Section

Blood Transfusion

- Available evidence suggested uncertain trade-offs between the benefits and harms of blood transfusions on the risk of SSI in prosthetic joint arthroplasty..
  (No recommendation/unresolved issue.)
- Do not withhold tansfusion of necessary blood products from surgical patients as a means to prevent SSI.
  (Category IB–strong recommendation; accepted practice.)

Prosthetic Joint Arthroplasty Section
Systemic Immunosuppressive Therapy

- Available evidence suggested uncertain trade-offs between the benefits and harms of systemic corticosteroid or other immunosuppressive therapies on the risk of SSI in prosthetic joint arthroplasty.
  (No recommendation/ unresolved issue.)

prosthetic joint arthroplasty patients

- do not administer additional antimicrobial prophylaxis doses after the surgical incision is closed in the operating room, even in the presence of a drain.
  (Category IA–strong recommendation; high- quality evidence.)
  - 臨床上給一天抗生素。
  - 有DM或肝問題病人會給2天抗生素。
  - 與感控討論過。

Anticoagulation

- Available evidence suggested uncertain trade-offs between the benefits and harms of venous thromboembolism prophylaxis on the incidence of SSI in prosthetic joint arthroplasty.
  (No recommendation/unresolved issue.)
  - Anticoagulation臨床KNEE~10天
  - Anticoagulation臨床HIP~20天

Orthopedic Surgical Space Suit

- Available evidence suggested uncertain trade-offs between the benefits and harms of orthopedic space suits or the health care personnel who should wear them for the prevention of SSI in prosthetic joint arthroplasty.
  (No recommendation/unresolved issue.)
  - 太貴了，臨床未使用。

Prosthetic Joint Arthroplasty Section

prevention of biofilm formation or SSI

- Available evidence suggested uncertain trade-offs between the benefits and harms regarding cement modifications and the prevention of biofilm formation or SSI in prosthetic joint arthroplasty.
  - 補水泥加抗生素，會延長2~3個月抗生素釋放以預防SSI。
  - 臨床醫師主訴加了抗生素的水泥，補水泥會使水泥強度下降。
  - 臨床依個人喜好選用
- The search did not identify studies evaluating prosthesis modifications for the prevention of biofilm formation or SSI in prosthetic joint arthroplasty.
  - 使用有抗菌效果之人工義肢，預防SSI。
  - 臨床依個人喜好選用
- The search did not identify studies evaluating vaccines for the prevention of biofilm formation or SSI in prosthetic joint
  - 臨床未使用。
- The search did not identify studies evaluating biofilm control agents, such as biofilm dispersants, quorum sensing inhibitors, or novel antimicrobial agents, for the prevention of biofilm formation or SSI in prosthetic joint arthroplasty.
  - 臨床未使用。

(No recommendation/ unresolved issue.)

文獻評讀
(AGREE II臨床診療指引評讀工具)

1.有特別描述指引的整體目的(P784)

- This guideline is intended to provide new and updated evidence-based recommendations for the prevention of SSI and should be incorporated into comprehensive surgical quality improvement programs to improve patient safety.

2.有特別描述指引所涵蓋的健康問題(P.784)

OBJECTIVE To provide new and updated evidence-based recommendations for the prevention of SSI.

3.有特別描述指引的適用族群(Conclusions P789)

- THIS new and updated recommendations are not only useful for health care professionals but also can be used as a resource for professional societies or organizations to develop more detailed implementation guidance or to identify future research priorities.

4.指引發展團隊成員包含所有相關專業團體
5.已納入目標族群(病人、公眾等)的看法和偏好(P786 METHOD)

- CDC completed a draft of the guideline
- expert panel for in-depth review
- HICPAC and members of the public at committee meetings (June 2010 to July 2015).
- CDC posted notice in the *Federal Register* for the 2 periods of public comment.
- Comments were aggregated and reviewed with the writing group and at another HICPAC meeting.

- Based on the comments received, the literature search was updated, and new data were incorporated into a revised draft.
- Further input was provided by HICPAC during a public teleconference in May 2015.
- Final HICPAC input was provided via a vote by majority rule 多數決 in July 2015.
- After final HICPAC input, CDC updated the draft document and obtained final CDC clearance and co-author approval.

7

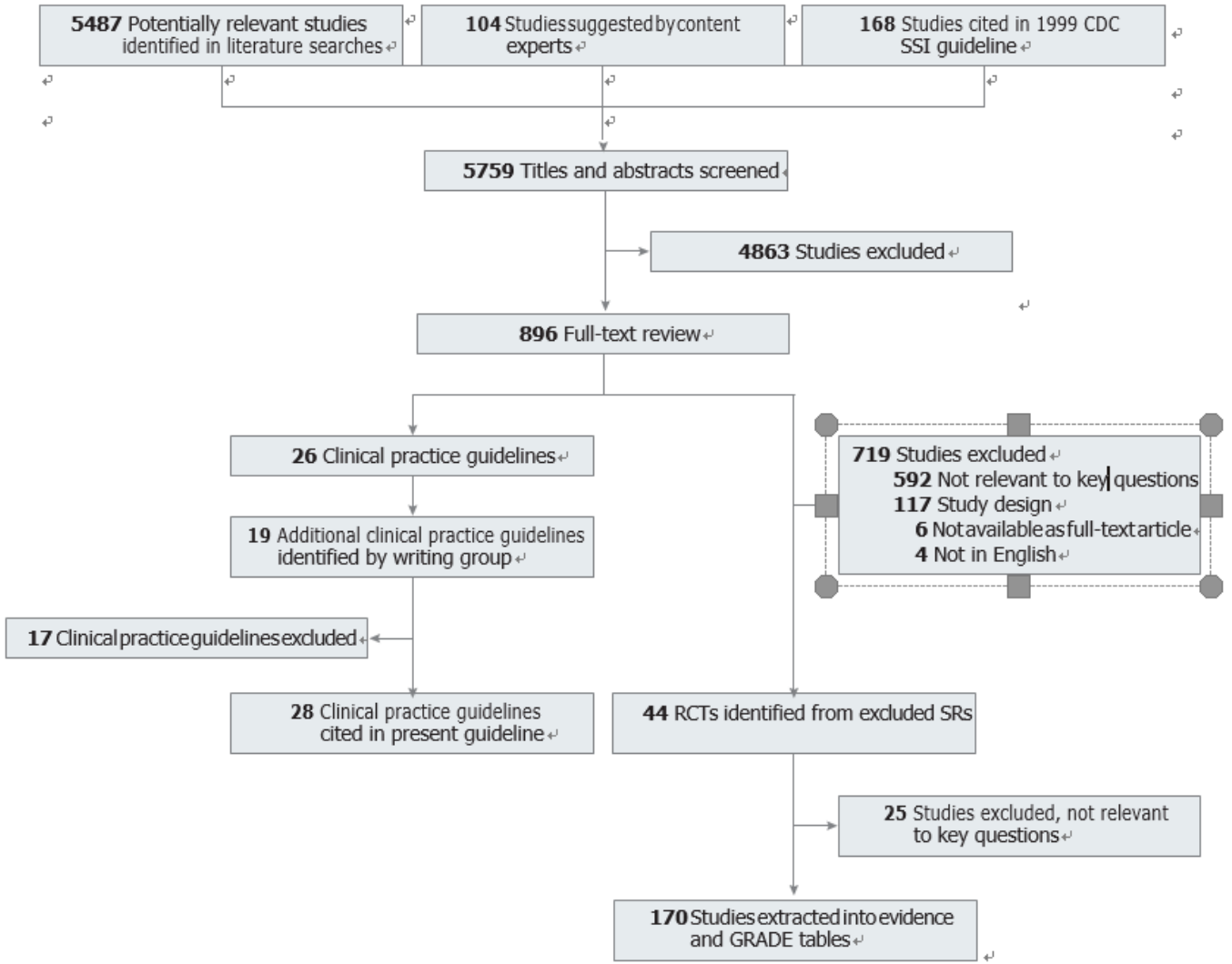
6.清楚界定指引使用者(P791)

- The CDC guidelines use a strict process for literature review, development of consensus, public reporting, and refinement of their final recommendations. The article from the CDC by Berríos-Torres et al5 in this issue of *JAMA Surgery* is useful to every surgeon because it is brief and summarizes the recommendations, with their level of support.

7.運用系統性的方法搜尋證(METHOD)(P785)

- This guideline's recommendations were developed based on a targeted systematic review of the best available evidence on SSI pre-vention conducted in MEDLINE, EMBASE, CINAHL, and the Cochrane Library from 1998 through April 2014.
- Of 5759 titles and abstracts screened, 896 underwent full-text review by 2 independent reviewers. After exclusions, 170 studies were extracted into evidence tables, appraised, and synthesized.

Figure. Results of the Study Selection Process



CDC indicates Centers for Disease Control and Prevention; GRADE, Grading of Recommendations, Assessment, Development, and Evaluation; RCTs, randomized controlled trials; SRs, systematic reviews; and SSI, surgical site infection.

7

8.清楚描述選擇證據的標準

- A modified Grading of Recommendations, Assessment, Development, and Evaluation (GRADE) approach was used to assess the quality of evidence and the strength of the resulting recommendation and to provide explicit links between them.

9.清楚描述整體證據的強度及其限制 (P.786)

- Category I
  - Category IA: A strong recommendation supported by high to moderate quality evidence suggesting net clinical benefits or harms.
  - Category IB: A strong recommendation supported by low-quality evidence suggesting net clinical benefits or harms or an accepted practice (eg, aseptic technique) supported by low to very low–quality evidence.
  - Category IC: A strong recommendation required by state or fed- eral regulation.
- Category II:
  - A weak recommendation supported by any quality evidence suggesting a trade-off between clinical benefits and harms.
- **Unresolved issue:**
  - An issue for which there is low to very low–quality evidence with uncertain trade-offs between the benefits and harms or no published evidence on outcomes deemed critical to weighing the risks and benefits of a given intervention

10.清楚描述形成建議的方法/ The methods for formulating the recommendations are clearly described (P786 METHOD)

- CDC completed a draft of the guideline
- expert panel for in-depth review
- HICPAC and members of the public at committee meetings (June 2010 to July 2015).
- CDC posted notice in the *Federal Register* for the 2 periods of public comment.
- Comments were aggregated and reviewed with the writing group and at another HICPAC meeting.

- Based on the comments received, the literature search was updated, and new data were incorporated into a revised draft.
- Further input was provided by HICPAC during a public teleconference in May 2015.
- Final HICPAC input was provided via a vote by majority rule in July 2015.
- After final HICPAC input, CDC updated the draft document and obtained final CDC clearance and coauthor approval.

11.形成建議時,有考慮健康效益、副作用及風險

➢Recommendation Categories

- ☐Category II: A weak recommendation supported by any quality evidence suggesting a trade-off between clinical benefits and harms.

6C. Randomized controlled trial evidence suggested uncertain trade-offs between the benefits and harms regarding the administration of increased FIO_2 via face mask during the perioperative period in patients with normal pulmonary function undergoing general anesthesia without endotracheal intubation or neuraxial anesthesia (spinal, epidural, or local nerve blocks) for the prevention of SSI. (recommendation/unresolved issue.)

9A. Consider intraoperative irrigation of deep or subcutaneous tissues with aqueous iodophor solution for the prevention of SSI. Intraperitoneal lavage with aqueous iodophor solution in contaminated or dirty abdominal procedures is not necessary. (Category II–weak recommendation; moderate-quality evidence suggesting a trade-off between clinical benefits and harms.)

12.指引中的建議與其支持的證據間有明確關聯 EVIDENCE REVIEW(P.784)

- A modified Grading of Recommendations, Assessment, Development, and Evaluation (GRADE) approach was used to assess the quality of evidence and the strength of the resulting recommendation and to provide explicit links between them.

13.指引公告前已經由其他外部專家審閱
14.提供指引更新的程序 (P786 METHOD)

- CDC completed a draft of the guideline
- expert panel for in-depth review
- HICPAC and members of the public at committee meetings (June 2010 to July 2015).
- CDC posted notice in the *Federal Register* for the 2 periods of public comment.
- Comments were aggregated and reviewed with the writing group and at another HICPAC meeting.

- Based on the comments received, the literature search was updated, and new data were incorporated into a revised draft.
- Further input was provided by HICPAC during a public teleconference in May 2015.
- Final HICPAC input was provided via a vote by majority rule in July 2015.
- After final HICPAC input, CDC updated the draft document and obtained final CDC clearance and coauthor approval.

7+7

15.建議明確不含混

- Category I
  - Category IA: A strong recommendation supported by high to moderate quality evidence suggesting net clinical benefits or harms.
  - Category IB: A strong recommendation supported by low-quality evidence suggesting net clinical benefits or harms or an accepted practice (eg, aseptic technique) supported by low to very low–quality evidence.
  - Category IC: A strong recommendation required by state or fed- eral regulation.
- Category II:
  - A weak recommendation supported by any quality evidence suggesting a trade-off between clinical benefits and harms.
- **Unresolved issue:**
  - An issue for which there is low to very low–quality evidence with uncertain trade-offs between the benefits and harms or no published evidence on outcomes deemed critical to weighing the risks and benefits of a given intervention

16.清楚呈現處理狀況或健康議題的不同選項

The different options for management of the condition or health issue are clearly presented

- **Methods**
  - This guideline focuses on select areas for the prevention of SSI deemed important to undergo evidence assessment for the advancement of the field.

17. 主要建議清楚易辨/ Key recommendations are easily identifiable

- Category IA:
  - A strong recommendation supported by high to moderate quality evidence suggesting net clinical benefits or harms.

18.指引有描述在應用時會遇到助力或障礙(P.784)

CONCLUSIONS AND RELEVANCE

- This guideline is intended to provide new and updated evidence-based recommendations for the prevention of SSI and should be incorporated into comprehensive surgical quality improvement programs to improve patient safety.

19.指引有提供如何實踐建議的說明和(或)配套工具 The guideline provides advice and/or tools on how the recommendations can be put into practice

- A detailed description of the Guideline Questions, Scope and Purpose, and Methods, as well as the Evidence Summaries supporting the evidence-based recommendations, can also be found in eAppendix 1 of the Supplement.
- The detailed literature search strategies, GRADE Tables, and Evidence Tables supporting each section can be found in eAppendix 2 of the Supplement.

20.有考慮到應用建議時對資源的潛在影響(P785)The potential resource implications of applying the recommendations have been considered

- The human and financial costs of treating surgical site infections (SSIs) are increasing. The number of surgical procedures performed in the United States continues to rise, and surgical patients are initially seen with increasingly complex comorbidities. It is estimated that approximately half of SSIs are deemed preventable using evidence-based strategies.
- Public reporting of process, outcome, and other quality improvement measures is now required .
- Reimbursements for treating SSIs are being reduced or denied. It has been estimated that approximately half of SSIs are preventable by application of evidence-based strategies.

21.指引呈現監測和(或)評估的標準

- A modified Grading of Recommendations, Assessment, Development, and Evaluation (GRADE) approach was used to assess the quality of evidence and the strength of the resulting recommendation and to provide explicit links between them.

22.贊助者的見解沒有影響到指引的內容

- CDC
- 沒影響

23. 記錄和陳述指引發展團隊成員的利益競爭

- The paucity of robust evidence across the entire guideline created challenges in formulating recommendations for the prevention of SSI. Nonetheless , the thoroughness and transparency achieved using a systematic review and the GRADE approach to address clinical questions of interest to stakeholders are critical to the validity of the clinical recommendations.

AGREE II 標準化計分

項目	分數
適用範圍與目的(Scope and purpose)	7
權益相關人的參與情形(Stakeholder involvement)	7
指引發展的嚴謹度(Rigour of development)	7
清楚呈現(Clarity and presentation)	7
應用性(Applicability)	7
編製的公正客觀及獨立性(Editorial independence)	7
平均	7

指引整體品質評分/Rate the overall quality of this guideline

最低可能的品質 Lowest possible quality	1	2	3	4	5	6	7 	最高可能的品質 Highest possible quality

我是否建議採用本指引/I would recommend this guideline for use?

- 建議(Yes)
- 建議(但需修改) / Yes, with modifications
- 不建議(No)
  - 說明：

手術之前，臥床病人執行使用肥皂或是消毒液擦澡，是否可行?

綠(同意)　：28人
黃(需討論)：5人
紅(不同意)：0人

謝謝