高度看護専門実践のアルゴリズムの可視化：シャント自己管理教育プログラム

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Structural visualization of expert nursing: Dialysis patient education program "Vascular access management"

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Abstract: Structural visualization was implemented on vascular access management education for dialysis patients requiring expert nursing. As listening to and recording the sound of the Vascular access is important, an education program involving the electronic recording of sounds was proposed. Recording the Vascular access sounds and utilizing them as part of the education program encouraged a common understanding of the sounds between nurses and patients and helped to achieve a better quality of patient education. It is thought that visualization of nursing practice and the thinking processes of expert nurses which have not been expressly stated previously can become a foundation for more advanced nursing care throughout the profession.

Keywords: Patients education, Hemodialysis, Hemodialysis

1. 目的

透析患者教育領域のシャント自己管理教育について、臨床で実際に行われている効果的な高度専門看護ケアを発掘し、そのケアの構造化とアルゴリズム化を行う。

2. 方法

I病院において、透析担当専門看護師を含めた数名の看護師より実践状況の実態把握と現場からの知識を抽出し、実践状況を踏まえ、ケアの構造化、ケア提供のアルゴリズム化を行った。さらに日本の現状では、NKF-DOQI on Access Careの"Monitoring Program"が看護師の役割として重要ではないかと考えられ、教育プログラムとしては、A Charting-by-exception (CBE) documentation modelをはじめとした国内外の文献も参考にした。
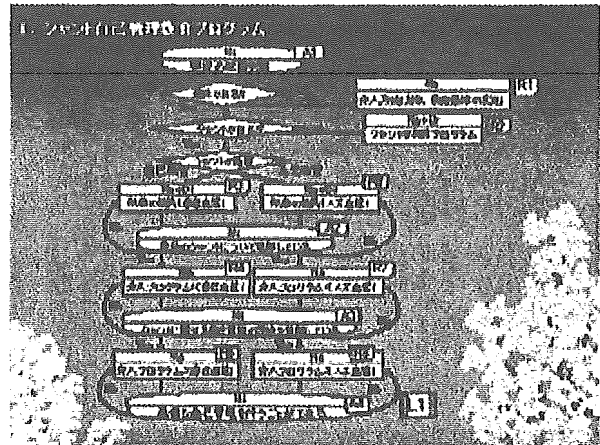
3. 結果

図1参照

図1 アルゴリズム

4. 今後の課題

電子カルテ上でのシャント音の取り込み、および音の評価基準の開発。また知識テスト、チェックリストの臨床での実施とその評価を行いたい。

高度看護専門実践のアルゴリズムの可視化：CAPDカテーテル管理教育プログラム

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Structural visualization of expert nursing: Dialysis patient education program "PD catheter management"

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Abstract: To seek out clinical examples of effective expert nursing in the field of dialysis patient education, which have nevertheless not been previously put into standard form or subjected to theory-based systematic exposition, on which to implement structural visualization. It aims to develop an education program for catheter self-management in PD patients.

Keywords: Patients education, Peritoneal Dialysis, Catheter

1. 目的

透析患者教育領域のCAPDカテーテル管理教育について、臨床で実際に行われている効果的な高度専門看護ケアを発掘し、そのケアの構造化とアルゴリズム化を行う。

2. 方法

T病院、腎臓病総合医療センターCAPD外来において、CAPD外来看護師よりカテーテル管理教育の実践状況の実態把握と現場からの知識抽出を行った。その実践状況を踏まえ、文献検討5)-12)を加えながら、ケアの構造化、ケアプログラムのアルゴリズム化を行った。

3. 結果

アルゴリズムは、別図 参照

図1 アルゴリズム

4. 今後の課題

カテーテル出口部の画像の取り込み方法の検討。ならびに知識テスト、チェックリストの臨床での実施とその評価に取り組みたい。
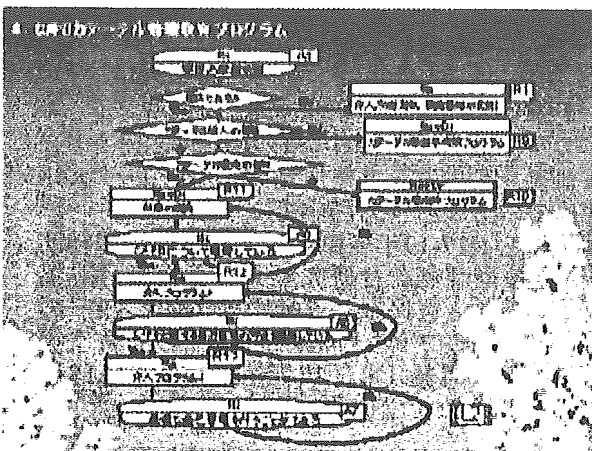
高度看護専門実践のアルゴリズムの可視化：体重管理の行動変容プログラム

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Structured Visualization of Expert Nursing: Structural visualization of expert nursing: hemodialysis patient education program "behavior modification program for hemodialysis patients"

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Abstract: Behavior modification program (BMP) has been suggested to be useful for the self-management of hemdialysis (HD) patients. To provide more systematic care, we structured the procedure of the thinking process and care in BMP as an algorithm. BMP developers produced a temporary algorithm based on previous studies, and discussed it with nurses with BMP experience, and added and revised necessary items. As a result, an algorithm of BMP with high reproducibility that allows maintenance of consistent quality for the self-management of HD patients could be developed

Keywords: Patients education, health behavior, hemodialysis

1. 目的

行動変容プログラム（Behavior modification program: BMP）は、血液透析（HD）患者の自己管理に対する効果が示されている。BMPにおける思考過程やケアの手順を、よりシステマティックなケア提供を構築するために，アルゴリズムとして構造化する。

2. 方法

BMP開発者が、既存の研究プロシジャーから仮アルゴリズムを作成し、BMPの経験者たちと討議を行い、必要項目の追加修正を行った。

3. 結果

その結果、再現性が高く、質保証を保てる、HD患者の自己管理のためのBMPのアルゴリズム化を行うことができた.
アルゴリズムは、図1、2参照。

図1 行動変容プログラム前半

図2 行動変容プログラム後半

4. 助成について

本研究は、「H17-19年度厚生労働科学研究費補助金　医療技術評価総合研究事業『保健・医療・福祉領域の安全と質保証に貢献する看護マスターの統合的質管理システムと高度専門看護実践を支援するシステム 開発（主任研究者：水流聡子）』研究の中で実施された。

高度看護専門実践のアルゴリズムの可視化：
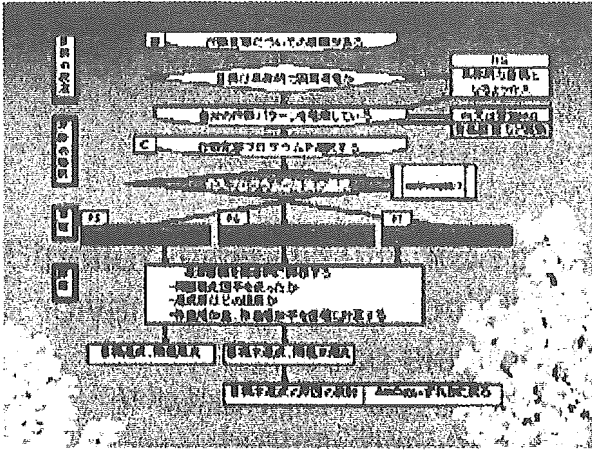## 褥そう予防・治療プログラム

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Structured Visualization of Expert Nursing: Prevention and treatmen care of decubitus ulcer

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Abstract: In this article we report on structured visualization of Expert Nursing: Prevention and treatmen care of decubitus ulcer. Decubitus ulcer is one of evaluation index of hospital and WOCN implements the expert nursing care. Visualizing its care process with algorithm notation, the outcome is thought to support the general nurse implement the expert care to improve the general medical quality. The point is significant in this study. We developed the algorithm of Expert Nursing Practice of decubitus ucler with the notation rule and got it evaluated by nurse and specialits. Future challenges are to improve the application system to enable us to take several intervention at the same time, and examine the validity of the algorithm. And in future the applocation system would be inplemented in Home care, continous expert nursing care could be realized.

Keywords: care of decubitus ulcer, visualization, algorithm, expert nursing

1. 概要

この研究の意義は、従来褥瘡ケアのエキスパートしかできなかったケアをアルゴリズム化することで、全ての一般看護師に提供でき、これが医療全体の質向上につながると考えられる。本研究の目的は、この褥瘡予防の看護技術をシステム化することである。

2. 方法

ケアの抽出方法は、
・アルゴリズムに連動するケア基準の作成
　1) EBM&N の手法をもとにした文献検索
　2) ガイドラインからの情報収集
　3) エキスパートオピニオンからの情報収集
上記3側面から得られた看護ケアの直接的、間接的エビデンスを基に、ケア計画を作成した。
次にこのケア計画の内的妥当性を確保するため、
　1) 褥瘡ケアを行う看護師4名によるケア計画候補の評価
　2) 専門家パネル9名による再評価
　3) 完成版の作成
を実施した。専門家パネル9名の内訳は、普段から褥瘡治療・ケアに精通している医師2名、WOC2名、看護技術に関する専門知識と技術をもつ看護師3名、理学療法士1名、栄養士1名であった。アルゴリズムを使用する対象者は全患者で、開始点は入院時、寝たきりあるいは座りきりになった時点、終了点は退院または死亡とした。

3. 今後の展望と課題

課題は、ソフト面では、褥瘡ケアの特徴として、危険因子が同時に存在し、その危険因子に同時に介入する必要がある。しかし、現在のシステムではケアの並列化ができないため今後、この点を改善していく必要がある。臨床面では、アルゴリズムの信頼性の検証を行うこと、展望として、転院や在宅看護など、療養環境が変更後も同様なシステムしていれば継続使用可能であると考えられる。

高度看護専門実践のアルゴリズムの可視化：ストーマのセルフケア教育プログラム

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Structured Visualization of Expert Nursing: Educational program of stoma self-care

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Abstract: To make an educational program for stoma self-care, we extracted and developed an algorithm for programmed stoma care. This algorithm was divided into three parts according to period, i. e., preoperative period, postoperative period, and rehabilitation period, and was composed of action nodes, thinking nodes, choice branches, assessment item tables, reference tables, and candidate logic tables. Wound Ostomy Continence Nurses (WOCNs) used the algorithm and provided feedback. The results indicated that the algorithm did not miss any important points of stoma care, and that it could be applied to patients.

Keywords: stoma self-care, algorithm, Educational program, expert nursing

1. 概要

ストーマ造設患者の外来通院時からの術前、術後、社会復帰の3期におけるスタンダードなセルフケア確立に向けてのケアプログラムである。ただし、ストーマケアにおいて専門的知識を要求される装具選択、スキントラブル時のアセスメントとそのケア方法についてはEBNは確立されていない。そのため、ETナース、WOCナースのエキスパートオピニオンをまとめ、エキスパートの意思決定プロセスを可視化したアルゴリズムを作成した。

本プログラムは、例えば術前はストーマ造設予定がされていないにも関わらず術中に造設となった場合には、該当する術後のケアプログラムから開始する。このように、このプログラムは一連の流れをすべてたどる必要がなく、該当する時期から使用可能という点が特徴である。

そして、臨床にて実践に即したプログラムとすべく、可能かを臨床にて試用し検討済みである。

2. 討論内容と今後の課題

議論：今回一連の流れとしてプログラム化されているが、特に術前の入院期間の短縮に伴いいろいろなケアを並列で行う必要性が出てくる可能性がある。その場合、このプログラムを実際にシステム導入する時に、同時に多数のケアを並列で運行することが可能か。

回答：質問のとおり、臨床では同時に多数のケアを実施していることがある。ただし、これらのケア内容をまとめるためには、一本の流れを作りケア内容を整理する必要があった。しかし、この一連のプロセスが明確になった後は、臨床に即したケアプログラムとなるよう、並列でのシステム運用の方法を検討する必要がある。

3. 助成について

高度看護専門実践のアルゴリズムの可視化：結核感染の可能性のある患者への予防的ケア

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Structural visualization of expert nursing: care to prevent tuberculosis infection for outpatients at their hospital visits

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Abstract: Tuberculosis infection poses a serious challenge for preventing transmission of contagious diseases at medical treatment facilities in Japan. The authors have therefore developed an algorithm for providing care to prevent tuberculosis infection during the critical period between initial consultation and being admitted to the hospital.

Keywords: Algorithm, tuberculosis infection, infection control, expert nursing

1. 概要

医療上大きな問題となっている空気感染の結核は、感染力が強く発症時には医療施設から地域まで連携した迅速な対応を迫られる。感染領域グループは、「結核感染防止と感染看護」に焦点をあて、「結核病床を有しない施設における結核感染の予防的ケア（外来受診から入院に至るまでの期間）」のアルゴリズムを開発した。結核感染防止策・感染管理についてはCDC（米国疾病管理センター）のガイドラインと結核予防法を基盤に構成し、結核感染患者・家族の精神的ケアについては林滋子らの研究を基盤に構成し、院内感染防止・職業感染防止・市中感染防止をアウトカムとして設定した。今後はヒアリング調査などを用いて、このアルゴリズムが臨床現場において有用であるか検討していく予定である。加えて、「入院後、隔離を受ける結核感染症患者に対して必要なケア」のアルゴリズムの開発も検討している。

本研究は、「H17-19年度厚生労働科学研究費補助金 医療技術評価総合研究事業『保健・医療・福祉領域の安全と質保証に貢献する看護マスターの統合的質管理システムと高度専門看護実践を支援するシステム開発（主任研究者：水流聡子）』研究の中で実施された。

（４）　日本看護科学学会
会期：H17.11.18～11.19
開催地：青森市立文化会館／ホテル青森
＜一般演題＞
＜交流集会＞

高度看護実践の可視化・構造化のためのアルゴリズム表記法の開発

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【背景】

【研究の目的】高度な看護ケアの展開では、どのような情報・知識を用いて、どのような判断ロジックを使って、思考が展開されているのか、そのプロセスを可視化することが重要である。アルゴリズムの表記方法を探したが、適切なものがみあたらなかった。そこで、本研究を通して開発することにした。

【方法】先行するプログラムドケアである「がん性疼痛マネジメントシステム」の開発作業を通して、サブシステムのアルゴリズム表記法の開発を行った。現実に行われている高度専門看護実践の可視化のためには、エキスパートナースの思考判断プロセス・思考判断に必要な情報・厳密な判断ロジック・参考とする判断ロジックにプログラムドケアを、可視化する必要があった。それら無形のものを、可視化するための、表記方法を、9月～12月のシステム開発作業の中で、副次的に開発した。

【結果】必要とする要素は、「action：行為者・行為」「thinking：判断者・判断」「choice：分岐」であった。また action や thinking の際に、必要とするテーブル類として、「参照テーブル」「アセスメント項目テーブル」「ロジック参照テーブル」「判断ロジックテーブル」と判断された。前述の要素やテーブル類を表記ツールとして使って、アルゴリズム図中に記載するテーブルと各番号づけのルールを、定めた。これらの表記方法を用いて、がん性疼痛マネジメントのアルゴリズム図の作成を試みた結果、可視化するのに必要な表記ツールとルールがほぼ整備されている可能性が示唆された。またこれらアルゴリズムを可視化した図をもとにシステム開発専門家との議論が可能で、システムを構築する上で、有用であると判断された。

意識障害患者の ICU 退室により生じる家族の困難と看護支援に関する研究

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Ⅰ．目的

意識障害患者の集中治療室(intensive care unit：以下、ICU)退室が行なわれる時期は、予後予測が困難であることが多いため、家族は喜びと同時に新たな困難を生じさせるきっかけを併せ持つと考えられる。そこで ICU から一般病棟へ移行する際の意識障害患者の家族が抱える困難を明らかにし、クリティカル期から行なうべき看護支援について検討することを本研究の目的とする。

Ⅱ．方法

対象者は、脳卒中（脳梗塞、脳出血、クモ膜下出血）により緊急手術を受けた患者の主な面会者である家族で、精神的側面、身体的側面、社会・経済的側面に関する半構成面接を ICU 退室直後、退室後 1 週間、退室後 2 週間の計 3 回行い、また、面会場面の参加観察を行った。得られた情報に関して Giorgi.A の手法を参考に現象学的アプローチを用いて質的分析を行った。本研究は、対象施設の倫理委員会の承認を受け、研究対象者に対しては十分な倫理的配慮を行った。

Ⅲ．結果

7 名の対象者から得られた情報の分析により、ICU 退室過程において家族が体験した思いに関して、最終的に 25 のカテゴリーにまとめられ、内容が示す時間的経過に従い 4 期 (移行準備期、移行開始期、移行継続期、移行終了期) に分類された。また、意識障害患者家族が移行期に抱く思いとして「患者の生命・治療環境への思い」「意識障害への思い」「家族生活と入院生活への思い」「患者イメージへの思い」「経済的負担への思い」が抽出された。それぞれ 4 期ごとの本質的な意味をカテゴリーから抽出し、「意識障害患者家族が移行期に抱く思いの移行過程構造図」の作成により家族の移行期の思いの傾向が明らかになった。意識障害患者家族は、患者の予後予測が困難な不確かさの中で、回復へのアンビバレントな希望を保ち続けていた。

Ⅳ．考察

家族にとって ICU 退室という初回移行体験は、喜びだけではなく、新たな困難やわずかな希望の喪失をももたらす可能性を秘めており、その初回移行体験での思いはその後の第 2 第 3 の移行体験にも影響する。よって、意識障害患者家族が、この初回移行プロセスをよりスムーズに通過できるよう、各時期に特徴的な家族の思いを把握した上で、先を見越した看護、継続看護という視点でクリティカル期から看護支援を行う必要性が示唆された。

周手術期の乳癌患者への医療情報提供システムについて
の課題と要望

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【研究目的】本研究は、乳癌の患者の周手術期に携わる看
護師が、患者・家族に現在提供している医療情報内容とそ
の課題と要望を明らかにすることである。
【研究方法】対象は近畿圏内の乳癌の周手術期医療に携わ
る看護師である。調査方法は半構成的質問紙を用いた面接
を1回行った。調査内容は、周手術期の乳癌患者に提供し
ている医療情報内容、課題、望ましい情報内容・方法につ
いてである。分析は、対象者の述べた内容について類似し
た内容をまとめ、カテゴリー化した。倫理的配慮として、
本学の倫理委員会の審査・承認を得、各施設の倫理審査ま
たは、許可を得た上で調査を行った。対象者には研究目的、
方法、参加の自由意思について文書と口頭で説明し同意を
得、プライバシーの守られる環境で個別に面接を行った。
【結果】対象者は14名で、看護師の平均経験年数は、12.0
年、当該病棟での平均勤務経験は、3.9年であった。また、
対象者の平均年齢は34.8歳であった。 提供している医療
情報内容は、術前、術後、退院後別に情報提供内容につい
て内容を分類した。特徴的な提供内容において術前は、＜
患者が自己決定できるような情報提供＞、＜術後の見通し
をパンフレット・治療計画書・パスを用いて患者と共有す
る＞、＜社会資源の活用を促す＞他、術後・退院後は、＜
リマンマ製品の説明＞、＜患側上肢の循環と運動＞、＜患
側上肢の保護＞、＜退院後、他部門との連携はない＞、＜
退院後も病棟で相談に応じる＞他に分類された。課題は、
＜患者情報の連携不足＞、＜情報提供内容の不均一＞他に
分類され、要望では、＜効果的な情報の連携＞、＜退院後
の相談窓口の開設＞、＜症状への対処についての視覚教材
の開発＞他に分類された。
【考察】乳癌は全摘出術と乳房温存術の術式があり、術前
に看護師は患者の自己決定を促すような情報提供を患者・
家族に行っていた。また、入院期間の短縮により、患者の
継続した問題が把握しにくい現状を問題と捉えていた。こ
れらの問題に対して＜効果的な情報の連携＞、＜症状への
対処についての視覚教材の開発＞すること、また＜退院後
の相談窓口の開設＞など患者が自ら医療情報にアクセスで
きる必要性を感じていた。入院期間が短縮されたことで看
護師は、患者の身体的・心理社会的なサポートに限界を感
じ、改善する方法を模索しているのが現状であるといえる。

がん化学療法における看護実践と看護者の思考過程

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【はじめに】
先行研究において、日常的な看護ケアとしてある手順をも
って展開される「基本的な看護実践」と、短時間のうちに
「必要情報の収集・判断・ケア」を連続的に行ったり、あ
る一定の目標を達成するために他職種と連携をとりながら
ケア実践を行う「複雑かつ高度な看護実践」が存在するこ
とを明らかにしてきた[1] [2]。さらにこの高度な看護実践の
構造や実質を表記していくことは、看護の複雑性を他者に
伝えていくととともに、一定の思考や判断の過程を有する
ことをもって高度な看護実践としての質を確保していくこ
とを可能にしていくと考える。
本研究においては、高度な看護実践行為のひとつとして「が
ん化学療法における看護」に焦点をあて、看護職の実践の
過程を記述することを試みたのでここに報告する。
【方法】
がん化学療法看護に携わる実践家に対してヒアリングや実
践場面の参加観察から得られたデータを元に、複数の有識
者間において「思考プロセス」、「判断根拠」などを記述し、
そのプロセスの明文化を図った。
【倫理的配慮】
調査対象者には、調査に対する了承を得て、中断が可能で
あることを保証し調査を行った。調査データについては、
個人が特定されることがないよう配慮した。
【結果】
がん化学療法において看護師が関わっているケアの内容と
して、大きく3つのことがあげられた。これらに①【がん
化学療法に関する意思決定の支援】②【安全な薬物投与】
③【有害事象のモニタリングとマネジメント】と枠組みを
つけた。①においては、医師と連動しながら看護者が精神
的フォローアップの役割をとる際に、把握しておくべき知
識や患者への指導内容等が思考過程として大きく位置付い
ていた。②においては、レジメン別患者条件等、判断をす
るための専門的な知識を用い巧みな観察を行っていること
が明らかとなった。③においては、治療中に予測される有
害事象や対処方法等の知識を有しながら、モニタリングを
行うプロセスが明らかとなった。 本研究で抽出された看
護師のケア実践における思考過程をより精選していくため
には、今後も継続的な調査を重ねる必要があると考えてい
る。
1）中西睦子：看護実践を記述する用語の構造の解析およ
び用語体系の構築に関する基礎的研究、平成10-11年度
2）水流聡子：電子カルテ缶のデータを実現する看護実践
分類および用語モデル開発、平成14-15年度

看護における補完代替療法（CAM）の教育・研究・実践

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【問題提起】この数年間、CAM いわゆる補完代替療法への関心が高まってきている。この分野への日本の医療の取り組みは先進国の中でも大変遅かった嫌いがある。看護においては、これまで看護が取り組んできたことと CAM との違いや、何が新しい視点なのかが掴みにくいこと、一般市民の関心に先導されて起こってきた代替療法の流れの中で、CAM＝「サプリメント」と受け止められてきたことなどから関心が持たれない時期もあった。　しかし CAM には、看護が取り組むべきいくつかの課題があり、看護に期待できる領域がある。CAM への取り組みは国により地域により、独自の発展の仕方が反映されているが、これまでの我が国における補完療法への取り組みを見渡し、今後積極的に看護学に取り入れるべき CAM の領域と CAM 教育の必要性、研究の推進と成果の蓄積、どのような看護実践の場において適用され、看護の成果を高めていくことが出来るのか考えてみたい。

視点１：アジア地域における看護 CAM の発展と現状（尾崎）

CAM の大きなうねりはやはりアメリカにある。しかし、CAM の基盤になっている伝統医学の発祥と、その伝承がなされてきたアジアでの取り組みの現状はどのようになっているのだろうか。韓国・タイなどの国々における CAM の活用について考えてみる。

視点２：看護学の中での CAM 研究（荒川・菅野）

とかく CAM は非科学的であり検証しにくいと言われることが多い。看護学の中では　CAM 技法はどのように研究されてきているのか、これから臨床エビデンスを高めて適切に活用されていくためにどのような点が課題なのか。幾つかの技法を取り上げて考えてみたい。

視点３：臨床看護の発展と看護における CAM 技法の活用（柳・金子・渡辺・定方）

代表的な CAM の技法として、リラクセーション法やアロママッサージ、タッチ技術の活用の現状、カウンセリング・心理療法に由来する共感的傾聴・回想法・動作法やグループアプローチ等の活用、またこれからの期待として医療気功や太極拳などの積極的養生法が患者にもたらすものはなにか、看護 CAM としての位置づけと課題を検討してみる。

電子カルテ・電子パスが必要とする看護マスターの開発

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医療機関の中の情報流通を電子化することで、医療の質安全保証と質経営を実現するために、オーダリングシステム・電子カルテ等に用いる看護行為マスターの開発を行った。このマスターは開始から４年強をかけて、日本医療情報学会看護部会・同学会課題研究会「電子看護記録研究会」・文部科学研究助成事業研究メンバー・厚生労働科学研究助成事業研究メンバー・数十箇所の病院看護部門の協力のもと、開発された。その間、各種学会（日本医療情報学会・日本看護科学学会・日本看護管理学会・国際医療情報学会の看護ワークショップ）の学術集会におけるワークショップ・交流集会等で提示・意見交換・評価の活動を展開してきた。

また、2003〜2004 年にかけては、当該マスターの評価作業を行った。2003 年には、全国の４００床以上の病院の看護部宛に本行為マスターを送付し、意見を収集した。その後 2004 年初期に、看護系の学術学会と専門看護師（全員）・認定看護師（サンプリング）に、本マスターと調査票を送付し、同様に回答を得た。

その結果、これまでこのような看護サービスの固まりの特定と、それに対する命名の全体像が可視化されていなかったこと、このような臨床用語のマスターが必要であること、予測される行為名称のかなりのものが準備されていること、用語表現に工夫が見られること、臨床の看護行為として命名がなかったものも特定され準備されていること、といった評価をいただいた。

これまでは各病院で院内標準用語を準備して院内マスターを作成してきたが、その作業の困難状況と非効率性、個々の病院が同様な作業をすることの無駄、できあがったマスターの不備、等が指摘され、本マスターのように皆で標準を作って管理していくことの重要性が指摘され、開発を急いでほしいという要望もよせられた。

医療は状態適応型のシステムである。看護は２４時間の患者状態を観察しており、その結果を記述する用語（観察項目とその結果表記）が必要である。電子経過表では、バイタルサインや患者の症状・訴え、医師が記載する症状所見が、患者状態を表現する用語といえる。この中で、看護師による２４時間の観察対象となっている用語を、現場からボトムアップで収集し、観察項目名称と結果表記を構造的に表現する枠組みを設計し、看護観察マスターと命名した。

（5）　第9回国際看護情報学会
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開催地：ソウル（韓国）

< To realize easy-to-understand Description of Nursing Practice Terminology for Consumer>

< Implementation and Evaluation of Standardized Patient Observation Master to the Nursing Directions System in Health Facilities for Recuperation>

< Structural visualization of expert nursing: care to prevent tuberculosis infection for outpatients at their hospital visits>

< Structural visualization of expert nursing: hemodialysis patient education program "behavior modification program for hemodialysis patients" >

< Structural visualization of expert nursing: Dialysis patient education program "Vascular access management" >

< Structural visualization of expert nursing: Dialysis patient education program "PD catheter management" >

< Structural visualization of expert nursing: Development of Assessment and Intervention Algorithm for Delirium Following Abdominal and Thoracic Surgeries>

< Structural Visualization of Expert Nursing : Cancer Pain Management>

< Structural visualization of expert nursing:Diabetes self-management education program>

< Structured Visualization of Expert Nursing- An educational program for stoma self-care ->

< Structured Visualization of Expert Nursing: Prevention of pressure ulcers >

< Structural visualization of highly-specialized nursing and midwifery practice:Nurse-Midwife' s Assessment and Care during labor and delivery >

< Structural Visualization of Expert Nursing: Expert Nursing Care for a Patient undergoing outpatient Radiotherapy >

< Structural Visualization of Expert Nursing: Expert Nursing Care for Extravasation of Anticancer Agent >

To realize easy-to-understand Description of Nursing Practice Terminology for Consumer

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Opening Summary

In Japan it is important issue to introduce E.H.R in over 60% of hospital with more than 400 beds. Introducing E.H.R is supposed to help provide safety medical environment as well as practice medicine with description in plain terms among professionals and among patient and medical professions. We've developed Nursing Practice Terminology understandable for consumers by visualization of nursing action, and arrangement of them by level and category. However, it is still difficult to express the appropriate contents because they consist of expert decisions and processes.

Hereafter, it is very important challenge of ours to develop easy-to-understand description of the Nursing Practice Terminology in purpose of supplying safe and patient-centered medicine to consumers.

Key Word: E.H.R, Nursing Practice, Terminology, Consumer

Introduction

We investigated how hard-to-understand descriptions of the Nursing Practice Terminology were. This time we report the result of the investigation of the questionnaire to the consumers about the Nursing Practice Terminology with 4 category of standard care, programmed care: General, Maternity and Midwifery, and Home care.

Method

1) Development of description for terminology

Description of terminology was developed by nurses involved in select of the terms, and nurses specializing in each category. Furthermore, two researchers rearranged the list by modification and addition. The subjects of terminology were the basic Nursing Practice Terminology: Standard Care and the Expert Nursing Practice Terminology: Programmed Care of General, Maternal and Midwifery, and Home care developed in previous study.

2) Subject of investigation

  Subjects were those who matched following 2 conditions:
  1. being capable to comprehend Japanese sentence
  2. being with seasoned knowledge of medical system
3) Implementation term
  On 18th February, 2005
4) Contents of investigation
  1. read a term and its description, and answer if the meaning of the term can be understood.

2. extract inappropriate sentence or expression and modify them.

Results

With the result of investigation of 4 categories of Nursing Practice Terminology, we analyzed the hard-to-understand-ness with the view of unintelligibility, unsuitableness, and incorrectness.

1) Unintelligibility: use of jargon, highly specialized vocabulary and unfamiliar term

Unintelligibility were seen most in descriptions for Programmed-care: General. In 4 categories, there were answers "cannot understand the word", and "don't know the name of instruments" in categories of standard care and Programmed care: Home care.
2) Unsuitableness: unsuitable expression or words
The unsuitableness was seen often in descriptions for Standard care. "To clarify the subject is required" was in Standard care, Programmed care: Maternal and Midwifery, and Home care.
3) Incorrectness: use of wrong sentence or too long sentence
The incorrectness was seen more often in Programmed care: Maternal and Midwifery, and Home care.

Discussion

"Cannot understand the word" was seen in all the categories. This implies that some word is familiar and known to nurse or other medical specialist but not to consumers. In Standard care the unsuitableness, in Programmed care: General the Unintelligibility, in Programmed care: Maternity and Midwifery, and Home care the incorrectness was pointed out more.

This implies that more devices should be taken in select of terms in each category and in development of description for terminology.

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Implementation and Evaluation of Standardized Patient Observation Master to the Nursing Directions System in Health Facilities for Recuperation

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Opening Summary

In this study we developed the observation item list from evaluation of Nursing Observation Master published by MEDIS-DC with the aim of implementation of nursing observation ordering system for convalescent wards in a general hospital. After developing, the nursing observation item list and observation ordering system based on it were implemented in clinic and evaluated by clinical staffs.

Keywords: Nursing observation, Terminology, Health Facilities for Recuperation

Introduction

The purpose of this study is to establish appropriate list of nursing observation items for nursing observation ordering system (hereinafter referred to as the ordering system), implement the ordering system in a certain ward of X hospital and evaluate its usefulness.

Method

First we took 602 items from "Nursing Practice Terminology for Nursing Observation by MEDIS" (hereinafter referred to as the Master) and evaluated them to see if they were appropriate for the ordering system. Then we described "observation PURPOSE" and "observation ACCOUNT" according to the items in the Master.

Second the ordering system with the observation items was developed to implement in a certain ward (Neural Intractable Diseases ward) of X-Hospital. 4 months after its implementation we investigated what items were applied for the patients and the way they input the items. From the result we evaluated the usefulness of using the Master, "observation PURPOSE" and "observation ACCOUNT", and the system itself.

Results

1) Implementation of Nursing Observation Ordering System

Items in the Master were classified into 5 discriminative groups. Every item in each group could be applied for the Ordering System.

Observation items were also classified into 3 categories, "Observation PURPOSE", "Observation ACCOUNT", and "item including BOTH PURPOSE and ACCOUNT".

We took two methods to adopting the item to this system; directly picking up an item from Master and creating observation ordering combined with one "Observation PURPOSE" and some "Observation ACCOUNT".

2) Evaluation of Nursing Observation ordering System

As for observation ordering set-in, 359 items were ordered, 274 items were still proceeding in the 4 months. 280 items were directly from the Master and 79 items the combination of " observation PURPOSE" and " observation ACCOUNT" while observation ordering proceeding.

Conclusion

20% of items were applied for patient and some item was applied more than once. This was supposed because of the characteristic of the patients' disease in the Neural Intractable Diseases ward for recuperation where the system was implemented.

In case of ordering items with "observation PURPOSE" and "observation ACCOUNT" various kind of observation item could be applied so that they might have had confusion in using it. So we should suggest it be used as a tool of searching for items.

Later stage, to improve usability of this system followings are supposed to help users to adopt appropriate items;

- To comprehend the thinking process of the user of this system
- To add function such as offering the information according to user's thinking process or reverse resolution search of items.

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Structural visualization of expert nursing: care to prevent tuberculosis infection for outpatients at their hospital visits

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Opening summary

Tuberculosis infection poses a serious challenge for preventing transmission of contagious diseases at medical treatment facilities in Japan. The authors have therefore developed an algorithm for providing care to prevent tuberculosis infection during the critical period between initial consultation and being admitted to the hospital.

Keywords: Algorithm, tuberculosis infection, infection control, expert nursing

Introduction

Tuberculosis, which is an airborne disease, requires a quick, coordinated response from those involved from medical treatment facilities to local area at onset of the disease when it is most contagious. There is however few facilities in Japan equipped to handle tuberculosis patients. Care is therefore provided to tuberculosis patients and patients who could possibly be infected with tuberculosis at those facilities. In order to contribute to prevention of tuberculosis infection and the advancement nursing care, the authors set about to develop an algorithm for providing care to prevent tuberculosis infection at facilities that are not equipped for handling tuberculosis patients.

Methods

1. Nursing practice terminology for prevention of tuberculosis infection was carefully selected by our research group consisting of accredited nurses for infection control and health administrators based on the following materials: the tuberculosis prevention method, the guidelines of JNA (Japanese Nursing Association) and CDC (Centers for Disease Control and Prevention), and researches by Japanese society of nursing care and infection control.
2. The algorithm for providing care to prevent tuberculosis infection at facilities that are not equipped for handling tuberculosis patients was created using the "Standard Nursing Practice Terminology Master" by Satoko Tsuru, et al.

Results

The algorithm was created based on the following three factors: 1)coordination with local medical treatment facilities and mandatory hospitalization in accordance with the laws, 2)tests and prevention of infection on scientific grounds and 3)psychological care for patients and their families based on Infection control nursing.
Close collaboration between nurses and ability to make decisions were indispensable for these three elements. As a result, the algorithm helps prevent contamination within the hospital, helps prevent hospital staff from being infected and helps prevent contamination in cities.

Discussion

Tuberculosis infection can be prevented by implementing the algorithm, but the ability to perform fundamental infection control and lots of work are required of nurses who deal with outpatients. In the future the usefulness of the algorithm needs to be studied by interviewing outpatient nurses, etc.

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Structural visualization of expert nursing: hemodialysis patient education program "behavior modification program for hemodialysis patients"

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Opening summary

Behavior modification program (BMP) have been suggested to be useful for the self-management of hemodialysis (HD) patients. To provide more systematic care, we structured the procedure of the thinking process and care in BMP as an algorithm. BMP developers produced a temporary algorithm based on previous studies, and discussed it with nurses with BMP experience, and added and revised necessary items. As a result, an algorithm of BMP with high reproducibility that allows maintenance of consistent quality for the self-management of HD patients could be developed

Keywords: Patients education, health behavior, hemodialysis

Introduction

BMP facilitate effective water/meal management in hemodialysis (HD) patients. These programs provide support for patients' self-management will and behavior modification using health behavior models and cognitive behavioral therapy as references. BMP consist of techniques such as self-monitoring (SM) and step-by-step (SS), and have been shown to be effective in water/meal restrictions[1-3]. However, if the thinking process and procedure differ among interveners who practice BMP, BMP may not be effectively utilized. To maintain the quality of BMP and provide more systematic care, we developed an algorithm that shows a stepwise method with clear description of necessary items and confirmation items of the BMP procedure.

Methods

1. BMP developers produced a procedure consisting of 6 steps based on previous studies.
2. To construct a more practical algorithm, they discussed the procedure with nurses with BMP experience.

Results

Reference table, the assessment item table, and thinking node were itemized to guarantee the quality of the algorithm. In the stage before the SM technique and SS technique, evaluation of the validity of medical treatment in subjects and their assessment of the preparatory state for learning were established. In addition, interventions by the SM and SS techniques were shown as action plans and points requiring attention (Table 1).

Discussion

Based on research procedures that have been shown to be effective and nurses' experience, evidence-based practical algorithmization of a self-management program for HD patients was possible.

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Table 1 - Action plan table of the SM technique

Procedure	Points requiring attention
1. The SM table is handed to the patient.	(1) The SM table consists of goals, monitoring items, space for patient's free-description, space for feedback description such as nurses' comments, and the name of the nurse in charge.
2. SM items are decided by the nurse and patient together.	(1) Whether concrete attainment goals and behavioral goals have been set is confirmed. (2) SM items are decided from the physical, behavioral, cognitive, and emotional aspects or in terms of merits and demerits. (3) SM items should be measurable.
3. On the day of HD, the nurse and the patient perform assessment of SM together, and the nurse performs feedback to the patient.	(1) The purpose of the SM is not that patients write description in the table but that they become aware of changes in their own behavior, physical condition, and feeling. Therefore, when there are blanks in the table, evaluation is performed while the nurse writes instead of the patient. (2) Attention is paid to privacy, and the environment is adjusted to facilitate talking. (3) When the attainment of the goals is difficult, the goals and SM items are evaluated and changed.

Structural visualization of expert nursing: Dialysis patient education program "Vascular access management"

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Opening summary

Structural visualization was implemented on vascular access management education for dialysis patients requiring expert nursing. As listening to and recording the sound of the Vascular access is important, an education program involving the electronic recording of sounds was proposed. Recording the Vascular access sounds and utilizing them as part of the education program encouraged a common understanding of the sounds between nurses and patients and helped to achieve a better quality of patient education. It is thought that visualization of nursing practice and the thinking processes of expert nurses which have not been expressly stated previously can become a foundation for more advanced nursing care throughout the profession.

Keywords: Patients education, Hemodialysis, Vascular access

Introduction

To seek out clinical examples of effective expert nursing in the field of dialysis patient education, which have nevertheless not been previously put into standard form or subjected to theory-based systematic exposition, on which to implement structural visualization. It aims to develop an education program for vascular access self-management in hemodialysis patients.

Methods

1. The literature review and web searches.
2. Interviews with five nursing professionals from two Japanese facilities based on the "NKF-K/DOQI on Access care" programs.
3. Structuring of care following algorithm notation method[1].
4. Feedback from clinical nurses regarding this structuring.

Results

From the literature review and web searches, we were able to gain an introduction to the education and teaching methods of each facility, but for the most part there was insufficient basis. From the clinical interviews it was found that expert nurses could deliver effective care through the use of educational media, but the thinking processes and nursing practice were not being recorded sufficiently and appropriate evaluation could not be made, impeding the sharing of effective care and its general adoption. Established processes involved in care and evaluation were organized following the algorithm notation method[1]. As part of this, the essential vascular access sounds were put onto computer using an electrostethograph for continuous monitoring and recording of notes. The Vascular access management education program is made up of three sub-units. These are defined as "Action node" (8), "Thinking node" (4) and "choice node" (9). "Assessment item table" (6) and "Reference table" (8). From feedback from nurses involved, as a result of the application of the algorithm the thought and action process could be expressed in an organized way.

Conclusion

It is concluded that by recording and utilizing the Vascular access sounds in education, patients and nurses can both understand and appreciate the sounds, helping to achieve a better quality of patient education. Visualizing the thinking processes and nursing practice of expert nurses which have not been expressly stated previously can become a foundation for more advanced nursing care throughout the profession.

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Structural visualization of expert nursing: Dialysis patient education program "PD catheter management"

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Opening summary

Structural visualization was implemented on catheter management education for peritoneal dialysis (PD) patients requiring expert nursing. An education program utilizing electronic images was proposed as a method of monitoring the exit site which is of high importance in PD catheter self-management. Recording images of the exit site and utilizing them as part of the education program encouraged a common understanding of the exit site between nurses and patients and helped to achieve a better quality of patient education. It is thought that visualization of nursing practice and the thinking processes of expert nurses which have not been expressly stated previously can become a foundation for more advanced nursing care throughout the profession.

Keywords: Patients education, Peritoneal Dialysis, Catheter

Introduction

To seek out clinical examples of effective expert nursing in the field of dialysis patient education, which have nevertheless not been previously put into standard form or subjected to theory-based systematic exposition, on which to implement structural visualization. It aims to develop an education program for catheter self-management in PD patients.

Methods

1. The literature review and web searches.
2. Interviews with two nursing professionals: One representative of PD outpatient services, and one nurse representative from a catheter manufacturer.
3. Structuring of care following algorithm notation method[1].
4. Feedback from clinical nurses regarding this structuring.

Results

From the literature review and web searches we were able to gain an introduction to the education and teaching methods of each facility, but for the most part there was insufficient basis. However, the PD catheter manufacturer's overseas pamphlet contained an account of a highly credible education program, and as a consequence during the interview the nurse was questioned about the suitability of the application of such a program in Japan. It was discovered the content of the care was expert and applicable. Expert nurses could adapt the educational media to a patient's individual situation and deliver effective care, but the thinking process and nursing practice up to the implementation of care was not being recorded sufficiently and appropriate evaluation could not be made. In particular, it was shown that even if there was adequate observation of the exit site it was expressed in vague terms or did not show objectivity. In order to deliver continuous patient education the condition of the exit site skin should be shown as an image to ensure that the same information is shared visually.

The processes involved in this care and evaluation were organized following the algorithm notation method. The PD catheter management education program is made up of three sub-units. These are defined as "Action node" (6), "Thinking node" (4) and "choice node" (6). "Assessment item table" (6), and "Reference table" (4). From feedback from clinical nurses, the application of the algorithm allowed the thought and action process to be expressed in an organized way.

Conclusion

It is concluded that by putting images of the exit site onto PC, patients and nurses can both see and understand the skin's condition. Recording images of the exit site, where shared understanding was previously difficult, and visualizing the thinking processes of expert nurses which have not been expressly stated previously, can become a foundation for more advanced nursing care throughout the profession.

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Structural Visualization of Expert Nursing: Development of an Assessment and Intervention Algorithm for Delirium Following Abdominal and Thoracic Surgeries

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Opening Summary

An assessment and intervention algorithm for delirium following abdominal and thoracic surgeries was developed based upon the current knowledge-base. The sources of information included the literature and clinical expertise. The assessment and intervention algorithm was structured and visualized so that patient-tailored and risk-stratified prediction/prevention, assessment, and intervention can be carried out. Accumulation of clinical outcome data is necessary in the future validation study to identify the relative weight of risk factors and clinical utility of the algorithm.

Keywords: delirium, risk factors, perioperative care, algorithm

Introduction

Postoperative delirium is generally associated with patients' decreased functional reserve, patient safety issues, patient/family distress, and elevated healthcare costs. Despite the high incidence of postoperative delirium, the evidence for postoperative delirium was limited in the literature. A standardized assessment and intervention algorithm for delirium following abdominal and thoracic surgeries was developed based upon the current available knowledge-base.

Methods

In order to develop an evidence-based algorithm, the current knowledge was extracted and structured from the literature, web sources, and clinical expertise, including interviews with healthcare professionals (nurses, surgeons, pharmacists). The investigators critically reviewed the above sources to develop a consensus-based structured assessment and intervention algorithm in accordance with a notation method[1][2].

Results

The resulting algorithm included the following three units: preoperative prediction; postoperative prevention and early detection; and management of delirium after its onset. The algorithm also included 7 "action nodes," 2 "thinking nodes," 3 "choice nodes," 3 "assessment tables," and 2 "logic tables." A delirium risk identification model[3] and nursing protocols for patients experiencing delirium[4-5] were tailored to the context of abdominal and thoracic surgery. Risk factors of postoperative delirium included predisposing factors (age, medical history, comorbid conditions), facilitating factors (psychosocial and environmental), and precipitating factors (surgical type, emergent cases, length/type of anesthesia, intra-/post- operative medications, critical conditions or complications, the intensive care unit stay). The assessment and intervention algorithm was structured in the following way: (1) Patients who are at high-risk for developing delirium necessitate close observation and intensive intervention to prevent delirium or manage potential delirium risk factors. (2) Patients who have already developed delirium necessitate symptoms and behavior management, in addition to identification and treatment of etiologic factors of delirium in collaboration with multi-disciplinary healthcare professionals.

Conclusion

Expert nursing of delirium assessment and intervention following abdominal and thoracic surgeries was visualized and structured. Novice nurses may be able to use this algorithm to improve their practice. Accumulation of patient outcome data is needed to identify the relative weight of various risk factors and to test clinical utility and validity of the algorithm.

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Structural Visualization of Expert Nursing: Cancer Pain Management

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Opening Summary

Nurses' knowledge and making decision in Cancer Pain Management contribute much to improvement of cancer patients' QOL. Based on practice of expert nurse involved in Cancer Pain Management, we have developed the algorithm, which clarified that nurses implement much of observations or complicated decision makings in Cancer Pain Management. Hereafter it is significant challenge to examine its consistency and validity to develop its system.

Key Word: Cancer Pain Management, Algorithm

Introduction

Pain is very severe problem for cancer patients and nurse takes very important role in Cancer Pain Management. For improving QOL of patients, appropriate decision of interventions adaptive to patient condition is required. To assure nursing quality, system supporting for such decision making is supposed indispensable. Here as early phase of developing this system, we developed algorithm of Cancer Pain Management based on practice of expert nurse in Cancer Pain Management.

Method

(1) The literature review and web searches.
(2) Interviews with Pain Control Nurse, pharmacist and doctors.
(3) Clarify the factor of cares in Cancer Pain Management.
(4) Develop the algorithm of Cancer Pain Management.
(5) Examine the consistency of the algorithm with Pain Control Nurse.

Results

Algorithm was developed based on the World Health Organization's (WHO) analgesic ladder. This algorithm showed typical 15 sequences of choices according to combination of medicine and administration route. Algorithm consists of following nodes: 159 of choice, 202 of thinking, and 101 of action. Reference table and assessment item table were developed to support more appropriate decision making. Further more expert nurses make complicated decision which medicine to administer with doctors and pharmacists in Pain Management. Team medicine is indispensable so that algorithm should clearly specify the actor: who to make choice or who to take actions.

Figure 1 Part of Algorithm of Cancer Pain Management

Conclusion

This algorithm clarified nurse implements several observations and multiple complex choices to take one action in Cancer Pain Management. It is next challenge in future to validate the algorithm by actually applying to cancer patients.

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